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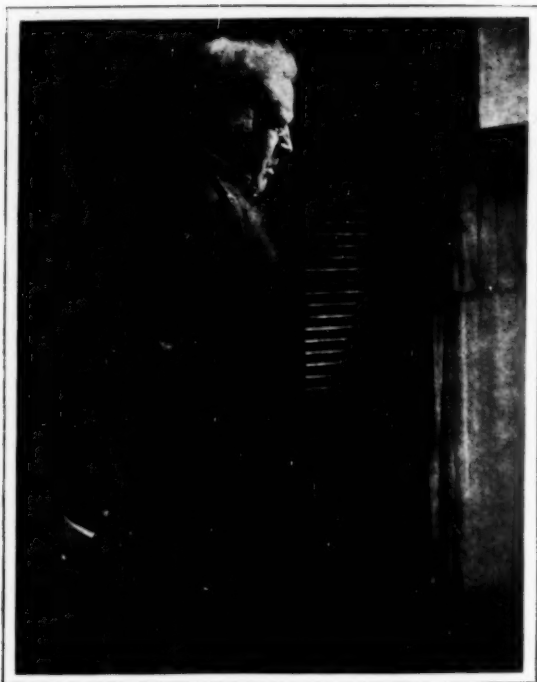
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WESTERN MEDICAL TIMES



*I will give nothing whatever destructive; and deeming it the special province of medicine to guard and preserve what nature generates.*

—HIPPOCRATES.

## *The Alkaline Factor*

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## LUTHER FISKE WARREN

1885-1937

*"Now cracks a noble heart"*

—Hamlet V. ii.

### *The Alleged Oppressiveness Of Our Abortion Laws*

**F**URTHER liberalization of our abortion laws, as they find actual application in practice, would lead to license. The laws and usages under which therapeutic abortion, sterilization, illegitimacy and contraception are regulated already find liberal interpretation.

Yet we find Dr. Abraham J. Rongy, eminent gynecologist and obstetrician, again advocating "liberalization" of the laws against abortion in the February *American Mercury*. He pictures eloquently the pathetic plights "that impose upon these women the necessity for interruption of pregnancy. . . . No matter how callous the average physician may appear, he is not unaffected by the pitiful pleadings of women to whom a pregnancy is a genuine cause of distress. The law-observing physician under present circumstances must close his eyes to the pleas, but his private opinion is at variance with the attitude forced upon him by the law and the medical code. The time certainly has come when enlightened public opinion must make some adjustment to the clamorous demand on the part of women not to be forced to give birth to children under circumstances which put a social stigma on them or when they are impoverished. The public must begin to take cognizance of the tragedies, the corruption, and the ravages the abortion racket is producing."

Abortion in general, says Dr. Rongy,

is at present a painful, costly and dangerous experience. "The average woman who submits to abortion, and thereby runs the hazard of death, of possible exposure, of involvement with the law, does so only because she has compelling reasons. Against these reasons no amount of condemnation by those who preach the Gospel and no threat of direct action by the law can be of much avail."

Dr. Rongy cites four cases to illustrate the unmatchably mean predicaments in which women sometimes find themselves as a result of undesired pregnancies:

1. A thirteen-year-old girl of a respected family was impregnated by a high-school boy. The price demanded by an abortionist was prohibitive. Beyond the means of her father, a university teacher. Hence the girl went through a most difficult labor which permanently invalidated her. Needless to say, life to this child became a tragic existence and the entire family is now on the brink of ruin, both financially and socially.
2. A woman who had previously been delivered of three children by Caesarean section, accidentally became pregnant again. At the hospital she was refused an abortion. Subsequently she went to a midwife, who aborted her. Sepsis set in and she died.
3. A married woman of thirty-eight, the mother of three children, was informed by her physician, three weeks after her husband's death, that she was three-months' pregnant. She was horror-struck; she was not fit mentally nor able economically to bear another child. The doctor informed her that the law makes no exception for women in her situation. She procured an illegal abortion. Final results unknown.
4. A girl of seventeen was impregnated by her father. The mother became apprised of it and she and the daughter rushed off to Europe, where they arranged for the confinement. While abroad, the mother wrote to friends that she had become interested in a newborn orphan, a distant relative, whom she planned to adopt and bring back to New York. The child is now being brought up in the household as the adopted daughter of her own father and grandmother. One does not require great imagination to visualize the anomalous situation in that household and the miserable life the young girl has been condemned to because of the abortion laws.

We submit that skilful delivery, social protection, and adoption of the baby, not abortion, would meet the requirements in Case 1. Even Dr. Rongy will admit that the obstetric management of the case might have been improved upon.

With respect to Case 2, sterilization in the course of one of this woman's cesarean sections would ordinarily have been offered and practiced. Her ingenuity in evading sterilization baffles us a bit.

Dr. Rongy says himself of Case 3 that the patient was "not fit mentally" to bear another child. Are no therapeutic abortions done today in such circumstances? However, in such a case, the effects of therapeutic abortion must be weighed carefully against the effects of delivery at full term.

In Case 4 the solution reached is no more shocking than abortion would be, for the latter would still leave the girl in the "home" in an equally anomalous situation, since on such a scale of animalism a schedule of repeated abortions would be feasible. Dreadful as this case is, it really has no point in this connection, as it is hardly a human problem. Note that Dr. Rongy does not allege non-consent.

Dr. Rongy's four cases fail utterly to convince us that further liberalization of the laws is in order—and they are probably as "good" as any that could be submitted.

### *The Doctor in a Seething World*

ONE notes a widespread and undisguised animosity against physicians on the part of the more neurotic of the intelligentsia. In part it is an emotional and irresponsible reaction on the part of people who, for all their intelligence, distrust the doctor and all his works. "Men and women are constantly in need of small repairs, although they appear to be in good health. They are not well and strong enough to play their part of human beings fully. The growing dissatisfaction of the public with the medical profession is, in some measure, due to the existence of this evil" (Alexis Carrel, in *Man, the Unknown*). Also to be taken into account is the resentment growing out of fee splitting and the excessive charges and commercialism of some offenders. But for the most part this animosity has deeper roots. It has to do with the apparent failure of the doctor to develop radical views beyond his immediate milieu. More than any other man, the doctor has unique opportunities to observe the viciousness of the social and economic set-up, but it is charged that he does not, like many of the clergy, for example, grapple with the fundamental problems of the larger world. Many physicians seem not to think beyond the duties that immediately face them; they care for and "mop up" after

the industrially maimed and the war torn, and care for them wonderfully well; but there it seems to end. They would never, it is charged, like a large percentage of the clergy, take a radical stand against war. Recently, it is true, 339 psychiatrists from thirty nations issued a warning at the Hague against the war psychosis which, spurred by unscrupulous and incompetent "statesmen," afflicts whole nations despite conscious individual aversion to war and the collective preparedness to wage war. The best elements in the profession would never fall in line with schemes to "socialize" medicine and put the care of the sick on a mass-production basis, involving less thought, as it would, of the individual patient. So charge neurotic reformers who are always the kind of people who are irked by the tasks presented by the sick individual under their immediate noses. Every doctor knows these rats at first hand.

And so doctors are looked upon as a kind of retaining class in the feudalistic scheme of things.

Traditionally, we are members of a liberal profession—which, if it means anything at all, means a profession into which broad and enlightened minds can easily fit. But in advanced circles today mere liberalism is held in low esteem. Here we have the key to our problem.

It is the doctor's apparent attitude toward certain institutions that he serves, and which to date are related in a peculiar way to wealth which represents industrial exploitation and piratical finance, that most grievously galls those who hate us.

Now, of course, the truth is that nobody understands the realities better than the doctor; but he is a liberal, not a radical. This is his crime. This is what is resented so much. For, understand that liberalism, which once seemed so fine a position, is nowadays in dire disgrace. Liberalism, say the new prophets, must give place to action that will "create a social structure in which the ideal will become a reality for the many and not the few, and that will make freed intelligence socially effective." Liberalism must become radical (John Dewey). This radicalism seeks, not reform, but "thorough-going reorganization of the social order."

Now we begin to see why the medical profession, which as a radical body could change the whole face of society, is hated for its supposed conservatism.



Thus we are considered by our enemies to be mercenary, dumb, and reactionary.

Our own hunch is that the medical profession is not lacking in clear understanding of the realities—including an accurate appraisal of the plans and personalities of the impatient, neurotic (and many times psychopathic) and incompetent critics and dreamers who becloud the horizon and are, in themselves, a greater menace to the welfare of the world than the finance capitalists of 1929. Who among those critics and dreamers whom we know today merits trust where a world is to be changed?

It is not change that we fear, but the changers.

### *Hospital Economies*

IN private practice expensive procedures that are employed almost as a routine in hospital ward work have been reduced to the necessary minimum. This applies to private practice both in and out of the hospital. The expensive procedures are clung to when not really needed out of fear of public opinion and in deference to the excessive spirit of science that obsesses a majority of our colleagues. The x-ray rather than physical diagnosis of the classical type rules almost routinely and often unnecessarily in pneumonia. Blood chemistries, basal metabolisms, gastro-intestinal series and studies of the sella turcica are carried out on a grand and frequently superfluous scale. When unnecessary, hospital costs are unduly swollen.

A reform set in some time ago with respect to dressings and similar supplies, but the economy angle just discussed awaits courageous indictment and regulation on the part of awakened intramural forces.

The realization that medicine is still an art as well as a science should not completely leave our minds.

Useless expenditures are paid for, in some degree, by low scale salaries and wages in the non-professional sphere of the hospital—an inequitable situation that, uncorrected, will yet plague us mightily.

### *Turmoil at Armageddon*

CONSIDER fee splitting, the selling of manufacturers' samples, the collection of commissions on surgical appliances, prescriptions, laboratory work, spectacles and oxygen tents, the commercial spirit in

much of workmen's compensation practice, the setting up of fraudulent insurance claims, "socialization" sabotage and the abortion racket. What a formidable list, at a juncture when the medical profession, more than at any time in its history, needs to present a united front signifying tone, distinction, efficiency and solidarity before the menacing advance of scheming politicians and uplifters.

While medical society chiefs voice ideals and standards and serve valiantly as levees against a threatening flood which imperils the whole structure of medicine, indictments are being handed down by court after court and medical society censors struggle timidly with a host of offenders and consider legislative relief. While the confusion grows worse confounded we are piously reminded again and again of the meticulous selection of medical school candidates; meanwhile it would seem as though a horde of Benedict Arnolds were annually let loose to prey upon the community and disgrace the Esculapian escutcheon.

It has been recently said by an accredited critic that our national social structure is "based in theory upon free and equal individuals, and in practice upon the several degrees of slavehood." We can waive the slavehood allegation and still concede classes. Medical men have constituted one class down to date, insofar as their training has been identical. There would be a change in the event of sickness insurance, for then the schools, in time, would be expected to turn out two classes of practitioners, an upper and a lower, the latter destined for the sickness insurance rôle. Now insofar as certain of the practitioners of today, after receiving a type of education uniform for all, insist upon the low forms of practice that we have enumerated (fee splitting, etc.), in just so far do they give countenance to those who would split the profession into a superior and an inferior class. These inferior men, in separating themselves from their similarly trained brethren, might just as well "go the whole hog" and be absorbed for "socialized" medicine.

In short, our dubious practitioners are sabotaging the profession and weakening it in the face of Armageddon. They are splitting the profession as well as splitting fees, thereby making the plans of the uplifters easier to carry out. They constitute, in short, a uniquely contemptible class of traitors.

### Measures Whereby the Public May Contract Colds Most Readily

**T**O CATCH a cold, the aspirant may with much confidence adopt the following measures.

Seek out crowds and stuffy, overheated rooms; try to make close contact with others, particularly coughers and sneezers; breathe through the mouth as much as possible; induce prolonged chilling of the body whenever expedient; lower vitality by curtailing sleep; abuse alcohol; sedulously avoid the use of citrus fruits and vitamin A sources, etc.; do not wash the hands before eating; convey infection into the nose with the fingers; be sure to instil "drops" or to use some spray at the first sign of a cold, so as to demoralize the cilia that direct drainage; when one feels that a cold is on its way but that the organism is successfully resisting it the aid of aspirin should be invoked to "turn the tables" just sufficiently, for this drug, in addition to its coal-tar effects, will lower the alkali reserve and produce an acidosis (Cushny, Textbook of Pharmacology and Therapeutics, 1936, Lea and Febiger).

### Pity the Poor Antivivisectionist

**C**ALEN, unable to obtain bodies, constructed his system of anatomy upon the basis of animal dissections. He used dogs, bears and apes, for example, upon

which to carry out his very extensive researches.

It was against this kind of anatomy that Vesalius and his successors took a decided stand. Their study of man revealed a set of facts very different from the data of Galen.

And so the lower animals lost their old caste as reliable models wherefrom might be deduced the structure of man.

But today the lower animals, especially the dog, are utilized extensively as physiologic models, so to speak. At many points they are indispensable, as witness the matter of insulin.

Is it not possible that the shallow thought characteristic of the antivivisectionists is in part motivated by the paradox which finds the dog rejected as a true source of medical knowledge at one point while, at the same time, he is treasured above rubies at another point?

Such things lock the gears of an antivivisectionist's mental mechanisms.

The dumbest of the laity naturally cling longest to teachings that have seeped down to them but which have been discarded by a constantly advancing and broadening profession. Herein lies a question as to what limitations should be placed on so-called medical education of the public, since so many matters do not remain static and carry danger when fixed in one form in frozen minds.

### EXPERIENCES WITH AMMONIUM MANDELATE IN URINARY INFECTIONS: REPORT OF RESULTS OBTAINED IN SIXTEEN CASES OF VARIOUS TYPES OF INFECTIONS REGARDLESS OF EXISTING PATHOLOGIC CONDITION

**LEO P. DOLAN**, Toledo, Ohio (*Journal A. M. A.*, Nov. 28, 1936), has used ammonium mandelate in various types of infections of the urinary tract in sixteen cases. In using this treatment the patients are given 2 drachms of the 40 per cent elixir of ammonium mandelate, four times daily in a small quantity of water. The total fluid intake in twenty-four hours should not exceed 1 liter of fluid, actually measured at the beginning of each twenty-four hours and evenly distributed to maintain a balanced concentration. The patient, if not hospitalized, is cautioned against the use of all other drugs, also foods and

fruit juices, which might readily produce an alkaline urine. A close check of daily cell count of the urine and a pH determination should be made on each patient. Existing obstructive lesions should be eliminated and free drainage established in all cases of urinary infection. Seven cases of *Bacillus coli* infection resulted in six apparent cures and one partial cure with complications of hematuria in one case. There were no failures. The three cases of staphylococcal infection resulted in failure. One complicated with hematuria was followed by acute retention in a prostatic case with previous cerebral involvement. One case of *Streptococcus viridans* infection was slightly improved. One case of mixed infection of diplococcus and *Streptococcus viridans* resulted in apparent cure but there was a recurrence. One case of diplobacillus infection resulted in apparent cure. One case of mixed infection of staphylococci and diplobacilli and possibly tubercle bacilli resulted in failure.

# Pyogenic Cystitis

## AND NEW METHODS OF TREATMENT

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IT HAS been estimated that ninety to ninety-five per cent of all people have a bladder infection at some time during life. The physician in general practice sees it often. The pediatrician observes a pyuria in infants frequently; the orthopedist, in cases with fractured backs and pelvis and bone infections; the rhinopharyngologist, in cases suffering with upper respiratory infections; the dermatologist, in many skin infections, especially furunculosis; the obstetrician, in pyelitis of pregnancy; the gynecologist, in pelvic tumors and pelvic infections; the ophthalmologist, in cases with iritis and optic neuritis; and the psychiatrist, in nervous individuals.

The fact that we are surrounded by this common disease may be a reason why it has ceased to be a popular subject for scientific discussion. We have become too much like the man who could not see the trees for the forest. May the author invite your attention to his clinical experience dealing with the causes of pyogenic cystitis and some newer methods of treating the difficult chronic cases?

The bacteriological issue of cystitis has been fairly well studied. Numerous organisms have been reported in bladder infections and it would be extraneous to give the whole list. *B. coli* is the organism most frequently found; *Staphylococcus aureus*, streptococcus, gonococcus, pyocyanus, *B. proteus*, diptheroids, and *B. typhosus* are the next most common.

It should be fundamental knowledge that the normal urine from a normal bladder is one of the cleanest of body fluids and that, above all, it is free from bacteria. The sunlight and sink tests of urines for organisms are fast becoming obsolete, although the naked eye still pro-

fesses strong competition with the lens of the microscope in some laboratories. A urine crystal clear to the naked eye may contain microscopic organisms.

In order to clarify our knowledge of bladder infections it is necessary to renew our acquaintance with the bladder as an organ. For a long time the bladder has been known to possess certain natural barriers against infection. Organisms do not pass readily through its wall from within, out or from without, in. The urine itself has been questioned as to its bacteriostatic power, but those who have had long experience with the treatment of bladder infections feel firmly that strongly acid urines cause a diminution in the amount of infection and, in many cases, a complete subsidence of the infection. The frequent emptying of the bladder is also a natural response of the organ in an attempt to rid itself of abnormal contents. The sphincters of the urethra prevent an ascending infection to the bladder and are natural barriers to infection.

As one analyzes the various problems in bladder infection, the question as to how bacteria gain entrance into the bladder is undoubtedly the most important from the patient's standpoint. As a matter of fact, most organisms enter the bladder through one or more of its three orifices, either through the ureters or through the urethra and vesical orifice. Organisms entering the bladder through the bladder wall are rare but do occur in a few infections of the pelvic organs.

In the analysis of 1317 cases of pyogenic cystitis it was found that in 782 cases the organisms gained entrance into the bladder by way of the kidney and ureters as the result of a blood-borne or lymphatic infection; in 58 cases the organisms reached the bladder by way of the urethra; in 48 cases, by way of the lymphatics from infections of the internal genitalia, namely from prostatitis and cervicitis; in

From the Department of Surgery, Yale University and the New Haven Hospital, New Haven, Connecticut. Read before the Brooklyn Urological Society, January 12, 1937.

10 cases, by way of the urachus in children; and in 12 cases, through fistulae, both spontaneous and operative. 241 cases followed retention due to obstruction; 25 cases resulted from neuromyopathic retention. In 19 cases the introduction of foreign bodies was the source of infection. In 122 cases direct avenues of infection could not be ascertained.

### *Course of Cystitis.—*

Acute cystitis is a simple infection of the mucous membrane of a hollow viscus. It may be well compared to an acute cold or an infection of the upper respiratory tract, which usually clears in seven to ten days provided there are not any complications. In fact, a cystitis should clear more readily because there are not any ramifications of the tract. An infection lasting more than a month may be considered chronic, but even this infection should subside within a month of treatment, provided all factors which promote the infection are controlled.

Recurrences of both acute and chronic cystitis are frequent, and especially is this true if care is not taken to control the causes of the infection.

### *Symptoms.—*

As soon as the bladder becomes infected frequency of urination varying from a few minutes to two hours and accompanied by burning and smarting usually appears. The pain is usually characterized as "burning," "scalding" and "bearing down" or it is described as a "feeling of pressure." It may vary in degree from a very slight discomfort to unbearable severity. The urine becomes cloudy and in severe infections there may be terminal hematuria. Incontinence of urine is not infrequent. Retention sometimes occurs.

### *Diagnosis.—*

The diagnosis of cystitis is not a difficult procedure as a rule. A history of an acute burning and smarting in passing a cloudy urine, without any other symptoms, is usually sufficient. Since the bladder wall is resistant to absorption and does not frequently allow migration of the organisms, there are not any associated chills and fever. Pyuria associated with chills and fever means a complication of cystitis. Either there is infection around the bladder, renal infection, or infection of the in-

ternal genitalia such as prostatitis in the male.

The urines do not always appear cloudy when the infection is chronic. Bladder urines which are grossly clear should be examined for organisms when the patients give a history of some frequency and a little burning sensation in the bladder. It is these chronic cases with urines clear to the naked eye which are most frequently overlooked.

The urine from the female should be obtained by catheterization in order to make an exact diagnosis of cystitis. The male may be asked to void in three glasses. The third glass specimen represents the actual urinary content of the bladder, provided 100 cc. of urine is passed in each glass. If the third glass contains infection, then a cystitis exists. Cystoscopy should prove beyond a doubt that the infection is limited to the bladder. A differential diagnosis must be made from posterior urethritis, prostatitis, allergic trigonitis, thrombosed vessels of the posterior urethra, nervous frequency and sympathetic rectal lesions such as hemorrhoids, fissures and tumors, in all of which conditions the urine examinations are repeatedly normal.

### *Complications.—*

Complications of cystitis are common. Ulcerations of the bladder do occur, followed by perivesical infections, septicemia, and abscess formation. Long-standing bladder infections produce fibrous tissue formation at the neck of the bladder with contraction of the neck, obstruction, retention, formation of diverticula and calculi, and atony of the musculature. Occasionally spontaneous fistulae develop. During long, protracted periods of infection many patients develop a very unstable nervous system because of the desire and frequency of urination and the loss of sleep. Sooner or later the kidneys become infected, pyonephrosis develops, renal destruction follows, and death ensues.

### *Treatment.—*

The treatment of cystitis may be divided into five parts: (1) Preventive treatment; treatment for (2) very acute cystitis with dysuria; (3) acute cystitis without dysuria; (4) chronic cystitis; and (5) cystitis associated with neuromyopathic retention.

### (1) Preventive Measures.—

Nowhere in the field of preventive medicine can one exercise more care and skill than in the prevention of cystitis. Many postoperative cases can be made to void without catheterization. The various means of turning on the water faucet and pouring warm water over the genitalia are common knowledge, but many hernial and appendiceal cases can be made to void by standing on the floor beside the bed. The forcing of fluids directly after an operation, or the introduction of fluids by clysis and intravenous methods, prevents many catheterizations by diluting the otherwise strongly acid urine which causes a hypertonicity of the sphincter muscle. Postoperative cases should not be allowed to remain too long with a hyperdistended bladder, as it has a tendency to reduce the tonicity of the detrusor muscle. When catheterizations are necessary strictly surgical technique should be used. The genitalia should be thoroughly washed with soap and water. The meatus of the female should be painted with mercurochrome. The anterior urethra of the male should be irrigated with sterile solution prior to the passage of the instrument. The operator himself should wear sterile gloves and should use a soft rubber catheter, because hard catheters are apt to produce a slight injury to the protective mucous membrane of the urethra and bladder. Every catheterization should be followed by thorough irrigation of the bladder with a 2 per cent boric acid solution or some other antiseptic, using at least 1,000 cc. in volume, and an instillation of 8 cc. of 5 per cent argyrol. Certain drugs are of aid in the prevention of infection, especially hexamethylenamine, grains 15. t.i.d., mandelic acid, 2 drams, t.i.d., and at times certain of the chemotherapeutic dyes.

(2) *Acute cystitis with dysuria* is best treated by placing the patient in bed for absolute rest. The fluid intake should be small, as large volumes of fluid have a tendency to cause more irritation. The patient should be given soda bicarbonate, grains 10, every three hours, or some comparable alkali, to reduce the acidity of the urine. A bland diet should be prescribed. Alcohol and condiments always produce aggravated bladder conditions. Hot vaginal or rectal douches two or three times a day are of great help. For the pain, rectal suppositories of opium, grain

$\frac{1}{4}$  to grain 1 with belladonna, grain  $\frac{1}{6}$ , q.4h., for two or four doses, are a much better anodyne than morphia hypodermically and produce less gastric disturbance. Suppositories of codeine may be used for children. In severe cases, to prevent gangrene of the bladder, a suprapubic cystostomy should be done. These latter patients will always present a picture of severe sepsis and need a suprapubic drainage of the bladder as their only source of relief.

(3) *Cases of acute cystitis with little or no dysuria* may be treated in the same manner as the group of cases with dysuria, except that the forcing of fluids from 3,000 to 5,000 cc. a day is a distinct advantage. The bladders in these cases should be irrigated daily with warm boric acid solution followed by instillations of 8 cc. of 5 per cent argyrol. Silver nitrate and mercurochrome injections in these cases produce more irritability, a great deal of discomfort, and constant desire for urination. For specific infections like pyocyanus, acetic acid, 1%, used in the bladder after irrigation, is effectual. One per cent phosphoric acid may be of advantage in those cases of staphylococcus infections which produce a strongly alkaline urine.

(4) *Cases of chronic cystitis without residual urine* are probably the most mistreated group of bladder infections. Advice as to diet and avoidance of alcohol is absolutely required. Oral urinary antiseptics, hexamethylenamine, methylene blue, and mandelic acid, which are used in rotation for a one-week period each, aid in clearing up some of the chronic infections.

In addition to drug therapy, hot bladder irrigations have been known for a long time to give relief of symptoms. Thirty years ago Guy Hunner published a paper on the treatment of cases of severe dysuria by means of hot irrigations of the bladder through the urethra after the preliminary construction of a vesicovaginal fistula. He placed his patients in a bath tub for as long as two years and irrigated the bladder several times a day. Months of such treatments were required for most cases and an ultimate closure of the fistula was necessary for a cure.

The author believes that the same results may be obtained without the use of the vesicovaginal fistula by a simple daily bladder irrigation through a urethral catheter with boric acid, 2 per cent, or sterile water, ranging in temperature from



112 to 120 degrees Fahrenheit. The temperature of the solution is the important factor. The bladder will tolerate as high as 120 degrees Fahrenheit and a solution of this temperature can be used with safety. Some bladders must be educated to this degree of heat by beginning with irrigations of 112 degrees. This treatment should be given by the physician and not by an attendant. The almost immediate subsidence of pain and rapid clearing of the urine can be obtained in days rather than in weeks or months.

**Case 1.** A married female (Mrs. M. C.), age, 65 years, had had painful and frequent urination over a period of three years. A number of cystoscopies failed to reveal any upper urinary tract infection, although the bladder persisted in showing *B. coli* infection. There was no residual urine in the bladder and no evidence of bladder neck obstruction. Various treatments with bladder irrigations and oral medications had been used with only very temporary result. Hot bladder irrigations of sterile water were begun on March 30, 1936 and given daily for the following week. After two treatments the dysuria had practically disappeared. On the fourth day, night frequency, which formerly had been every hour, ceased. However, on April 4th and 5th, without treatment, she had a recurrence of nocturia once nightly. The urine remained clear. April 15 she was free from symptoms, but the urine showed a rare bacillus. She continued another week with daily hot irrigations with a complete subsidence of the infection. She has been seen at monthly intervals since June 18, 1936 and at all times she has had normal urinations without discomfort and the urines have been free of infection.

**Case 2.** A man (Mr. R. S.), age, 42 years, came in voiding about 45 cc. of cloudy urine infected with *B. coli* every 15 or 30 minutes during the twenty-four hours. His history began in April, 1934, when he had a severe cold complicated by cystitis and retention of urine. He was first seen by the author on October 26, 1936, at which time a complete cystoscopy revealed the infection to be limited to the bladder. There was no residual urine at this time. The capacity of the bladder was 100 cc. Hot irrigations, 120 degrees Fahrenheit, were instituted daily with a result that four days later the urine showed only a few pus cells and no

organisms. November 5th, ten days after beginning the treatment, the urine was absolutely clear and microscopically free from pus and organisms. He has been seen at frequent intervals since, and the bladder urine remains sterile. Urinations now vary from four to five hours during the day and he rarely gets up more than once at night.

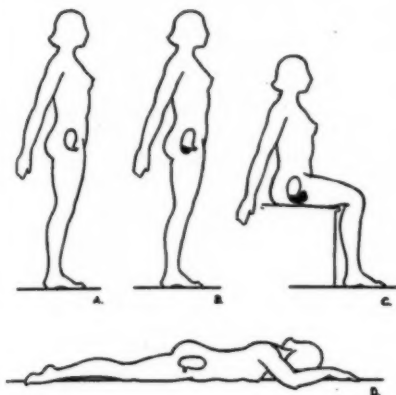
(5) *The treatment of neuromyopathic bladders* with infection has always been a very difficult problem and since many forms of treatment have been advocated it is probably safe to say that intelligent treatment has not been applied or that the correct treatment has not been found. Many people with fractured pelves show a retention of urine. The patient should be watched and if he is unable to void, a retention catcher should be inserted for about a week. The bladder should be irrigated three or four times a day and oral antiseptics like the chemotherapeutic dyes or urotropin should be used. The atonic condition of the bladder, in the absence of other muscle paresis and paralysis, usually subsides and the patient is able to void normally within a few days. Even if there is a little infection from the retention catheter, this clears rapidly after the catheter has been removed.

Mrs. C., a patient aged 42 years, suffered an automobile injury causing multiple fractures of the pelvis on June 19, 1936. Four days after the injury the patient was noticed to have a distended bladder and had been voiding but little the two previous days. She did not have any paralysis of the lower extremities and a retention catheter was inserted in the urethra. The bladder was already infected with *B. coli*. Three bladder irrigations were given daily and a chemotherapeutic dye was given by mouth. At the end of nine days the patient had a desire to void and the catheter was removed. Following this the patient was able to void and four days later the urine became bacteriologically free from infection.

\* Those patients with fractured backs who have a possible chance of recovery are best treated by tidal drainage, as suggested by Frank Hinman and Donald Munro. This treatment can be carried out for a month or more to a good advantage and without detriment to the individual. Patients who have fractured backs with a permanent cord injury and paralysis of the lower extremities had best be treated with con-



stant suprapubic drainage, because interval catheterization is apt to be accompanied by trauma as well as infection, prostatitis occurs due to the passage of instruments and relaxation of the urethra, upper urinary tract infections develop, and renal destruction follows. Individuals with completely paralyzed lower extremities, or even paralysis extending up to the costal cage, may be made to live many years after suprapubic drainage.



**Procumbent Urination for Cystocele and  
Paretic Bladder Cases**

- A. Position of normal bladder, female.
- B. Cystocele, standing.
- C. Cystocele, voiding position, incomplete emptying.
- D. Procumbent position, cystocele, complete emptying.

Patients with chronically paretic bladders and cystocele, who have always some residual urine, can be made to empty their bladders by procumbent urination. The cystocele case, for instance, who has a bad heart and does not present an operable condition, may be taught to urinate in the procumbent position with a result of complete emptying of the bladder with each urination and a clearing of the chronic cystitis within a week.

Mrs. K. S., age, 64 years, had a myocardial lesion, a moderate cystocele with *B. coli* infection and a residual urine of 40 cc. She had been urinating every half-hour during the day and every hour at night for many years. The upper urinary tract was free from infection. The patient was advised to void in the procumbent position on

September 4, 1932. The urine at this time was grossly cloudy. At the end of a week her symptoms of dysuria had entirely disappeared and the urine was free from infection. Catheterization, after the patient had voided in the procumbent position, revealed no residual urine. She has continued to void once or twice a day in this position with a persistence of normal urine and freedom from symptoms.

This method of treatment has been successfully used in cases of weakened bladder musculature resulting from diabetes and in cases of paretic bladders resulting from arteriosclerosis, multiple sclerosis, and cord injury.

Mr. H. G., age, 58 years, had had three or four attacks of right pyelitis during the two years prior to examination. On admission he showed 400 cc. of residual urine infected with *B. coli*. Suprapubic prostatectomy and diverticulectomy were done on December 22, 1931. Following these procedures he persistently showed 100 cc. of residual urine, always infected. On June 6, 1932, a Young punch operation for contraction of the vesical neck was done. This was followed by a reduction of the residual urine to 20 or 30 cc. The urine remained clear but always contained bacilli. In the meantime he had had many bladder irrigations and various oral urinary antiseptics. Wassermann test was negative and all reflexes were normal. He did not have any urinary symptoms but persisted in maintaining a small amount of residual infected urine. Various exercises to increase the muscle tone of the body were attempted and sinusoidal current was applied to the abdomen in an attempt to improve the muscle tone of the bladder, which appeared somewhat below normal. All of these treatments seemed to be of no avail. On September 18, 1932 procumbent urination was begun. One week later the urine was clear and the patient was found to be emptying his bladder. During the last four years he has had two attacks of cystitis lasting for about ten days. These always cleared with procumbent urinations instituted throughout the day. Usually he voids in this position once or twice a day. By doing this he is able to maintain an uninfected urine.

While this method of urination is rather awkward at first, the exclamations of the patients who have been relieved of infec-

—Continued on page 162

# ACUTE AND CHRONIC PRIMARY CYSTITIS:

A Report of Two Cases with Clinical Experiences of the Author

AUGUSTUS HARRIS, M.D., F.A.C.S.

Brooklyn, N. Y.

## Case Report No. 1— Acute Primary Cystitis

**M**R. J. M. 58 years of age, was admitted by ambulance to medical ward October 7th, 1936 (discharged October 19th, 1936) complaining of headache and dizziness starting seven days before admission. Two days later, began with acute and progressive frequency, urgency, hematuria and dysuria, with very severe pain in anterior urethra on voiding.

**Previous History:**—Patient had gonorrhea in 1912 for which long and thorough treatment was given with no trouble thereafter.

On admission there was evident bladder spasm and 'shooting' pains in the right groin during micturition. There were no chills or fever. Patient voided in small amounts at frequent intervals often with blood. There were no symptoms referable to the upper urinary tract, and physical examination showed no tenderness, jar-tenderness or enlargement of either kidney. Prostate was slightly enlarged on rectal examination, smooth in outline but not tender. Patient was seen by us in consultation three days after admission, when the symptoms and physical findings were essentially the same as on admission. Exploration of the urethra at this time with a diagnostic bougie excluded the presence of stricture. The urine was loaded with pus and blood cells and culture revealed luxurious growth of *B. coli*. Warm external applications to the bladder region and appropriate sedatives were given and daily bladder irrigations with 1 to 3000 solution of warm silver nitrate, leaving about two ounces in the bladder to be retained following each irrigation. A colonic irrigation was also given daily. One of the chemotherapeutic dyes was also given three times a day. Response to this treatment was very striking and marked relief began from the time of the first bladder irrigation. He was almost completely relieved of all symptoms within a week and discharged from the hospital nine days after treatment was begun,

when he could retain his urine at four-hour intervals during the day and voided once at night. Two days later, in the outpatient department, the freshly-voided urine was grossly clear with flakes. Irrigation with nitrate of silver solution 1 to 3000 was repeated. Two subsequent irrigations were given at intervals of about two weeks, after which all vestige of urinary symptoms disappeared. He has remained well up to the present time, which is over three months since he left the hospital. We have instructed him to report once a month for "check-up." He has not been cystoscoped and we see no reason to justify this procedure.

## Case Report No. 2— Acute and Chronic Primary Cystitis

**M**RS. W. S. M. age 66, widow, consulted me at my office on August 26th, 1936 complaining of great distress in the region of the bladder and urethra with frequency or urination every hour; both day and night. The urgency was often very marked. She had been compelled to give up practically all her social activities. The catheterized bladder urine was loaded with pus cells and evidenced the typical colon bacillus "swirl" on agitation of the fresh specimen. On the first visit, there was nothing in the history or physical examination to lead one to suspect a lesion of the upper urinary tract.

**Past History:**—She had been under treatment by two prominent urologists intermittently since 1923, during which period cystoscopy had been done several times and ureters dilated for "stricture" and treatment also applied for ulcers of the bladder. About six months ago a cyst was removed near the urethra in the hope of benefiting the patient. At this time also, treatment was instituted for *Trichomonas vaginalis* infestation of the vagina. Her repeated suffering with exacerbations had 'unnerved' her to the extent that she had

been referred to a neuropsychiatrist by a prominent internist for treatment of an alleged psychoneurosis. She resented this and refused to consult him.

On the first visit at my office the bladder was irrigated with one pint of warm solution of nitrate of silver 1 to 3000. She was also given some sandalwood oil three times a day and 5 grs. salol four times a day. The urethra and bladder were quite sensitive to the catheter and manipulations, and she was definitely intolerant. One and one-half ounces of the silver solution were left in the bladder which she failed to retain for more than ten or fifteen minutes. In view of the duration of her difficulties she was very tense, apprehensive and skeptical. She reported two days later at the office with urine grossly clear, and an almost incredible relief from urinary symptoms. Silver nitrate irrigation was repeated in the same manner, leaving two ounces of solution in the bladder which she retained. Three days later, on the third visit, she reported striking and continued improvement. The urine was clear and remained so. On the fourth visit she was almost completely relieved and stated that she felt 'twenty years younger.' On the fifth visit she felt normal and said that she could go all night without voiding, an entirely new experience since the beginning of her difficulty. Four subsequent silver nitrate treatments were given at intervals of four to seven days to make certain of controlling the possibility of relapse. She has remained well, however, and reports at intervals of four to six weeks for examination. It is now a period of over five months during which the patient has remained perfectly well and enjoyed all her usual activities. We have purposely avoided cystoscopy.

### *Practical Considerations*

These two case-reports are cited to emphasize a certain class of case, which, in our own experience, is very common. While I am unable to give a statistical statement, it is safe to state that we have treated well over one hundred and fifty cases in which all evidence has indicated primary infection of the bladder. The majority have occurred in women in the proportion of about three to one in the male. These exclude conditions of urethritis, tuberculosis, vesical calculus or neoplasm, vesical neck and urethral obstruc-

tion or any obstructive uropathy or calculous disease of the upper urinary tract.

We believe it is generally taught and understood that most or all bladder infections are secondary to other lesions in the bladder, urethra or upper urinary tract. This was our early conception until we learned, from long and repeated personal experience, that a urinary infection with acute onset with severe or relatively severe vesical symptoms, especially in women, in the absence of symptoms referable to the upper urinary tract, usually proves to be primary. This is, as a rule, readily amenable to simple local bladder irrigation treatment with silver nitrate solution. A number of savage cases with frank hematuria have been brought to the hospital by ambulance, treated daily, and sent home within seven to ten days relieved of all symptoms and with clear urine. We do not wish to infer that every case has an immediate perfect result, but we regard the use of silver nitrate as generally specific and dramatic in its cure of bacillary infections.

IN former years ureteral catheterization by me, in some of these, during the acute stage, recovered a clear sparkling urine from the kidneys while the bladder was severely inflamed. Hemorrhagic areas in the mucosa and submucosa or patchy inflammation were of common occurrence in those examined by cystoscope. It is obvious that infection in the bladder in such cases may be easily carried to the renal pelvis by the ureteral catheter and that cystoscopic procedures are inadvisable under the conditions stated. While urinary fever may be associated, it is the exception rather than the rule. Pyelonephritis on one or both sides is also common with vesical infection, but these are omitted from the subject under discussion.

Primary cystitis can very often be treated at the office and cured in a relatively short period of time and without resorting to cystoscopy. Unless there is some associated lesion, the inflammation subsides rapidly and is cured. It must be thoroughly treated, however, and followed semi-occasionally to avoid exacerbation. We have performed observation cystoscopy several times, in gentle manner, seven to eight days after the urine has cleared completely and found visual evidence of residual patchy inflammation. Silver

nitrate is the drug par excellence, in 1 to 3,000 dilution and increasing the strength slightly as tolerated by the individual patient. As the urine clears, a few instillations of silver nitrate are usually given for their stimulating effect at four to seven day intervals, using one to one and a half ounces of a 1 to 1,000 solution and gradually increasing the strength up to 1 to 600 if tolerated and retained.

Rarely in the early acute stage, neutral acriflavine, 1 to 3,000 potassium permanganate, 1 to 3,000, or oxycyanate of mercury, 1 to 5,000 are better tolerated and work well. Marked discomfort during silver nitrate treatments in the acute stage usually passes after the first or second sitting. It is common experience for patients to report almost complete relief after the second or third treatment.

It must be assumed that every physician in conditions of acute pyuria will survey the patient for urethritis, residual urine, urethral obstruction, for rectal exam, etc. as a matter of routine. In the absence of severe symptoms referable to the upper urinary tract, we urge that cystoscopic study be deferred and that the patient first be given a series of irrigation treatments. This even applies to conditions of prostatism (not acute prostatitis) with cystitis. We are all too familiar with the frequent febrile reactions after cystoscopy in the presence of acute infection, to say nothing of severe pain, dysuria and other acute symptoms suffered by the patient after instrumentation. This is to be avoided if possible. Our routine in all hospital and office patients is to first catheterize the bladder and determine the type of organism.

Rarely the tubercle bacillus may be found. Here the onset of symptoms is usually gradual and long-continued, and silver nitrate frequently causes a severe reaction of pain and spasm and may thereby indicate the presumptive diagnosis before the acid fast organism is found. Secondary infection in tuberculous cystitis is rare.

In the acute stage of cystitis we do not prescribe methenamin as it may aggravate symptoms by liberation of formic acid in the urine. We prefer one of the chemo-

therapeutic dyes three times a day. We have also used salol.

As attacks often follow a period of constipation, sometimes with pain or discomfort in the region of the rectosigmoid or descending colon, regular bowel elimination is imperative. Colonic irrigations have proven of great value. In some patients, striking improvement has followed thorough cleansing of the colon. We have found the oral use of a hemicellulose preparation called "mucilose" to be a valuable adjunct in regulating the bowel, by giving bulk and lubrication, cleansing the colonic tract without use of laxatives. Acidophilus milk and culture have also been used extensively.

WHILE the ketogenic diet in adults has met with some degree of success in our hands, it has not proven practical, for the most part, as patients often rebel and become upset and even ill from this diet. Its use is inadvisable in gallbladder disease, diabetes, coronary disease and arteriosclerosis.

A new weapon has recently come into use, viz., ammonium mandelate given in water three times a day. Although we have used it in a limited number of patients, certain of them have responded in striking manner. The unfortunate effect is frequent upset of digestion and appetite, requiring guided use in some people. The drug is often better tolerated with its continued use.

THE route of entrance of the organism in primary cystitis is interesting to speculate but purely a matter of conjecture. We are inclined to the theory that the virus enters in some way directly from the large bowel by way of lymphatics. In the female, it may be an ascending invasion per urethram. This does not seem likely to us. There is nothing definite to indicate, suggest or prove that the cervix and female pelvic organs act as the focus and source of the vesical invasion.

It is the hope of the writer that this simple presentation citing our experiences in the management of acute cystitis may prove to be of definite practical value not only to the urologist but to the general practitioner and to the patient.

306 PARK PLACE.

## A SYMPOSIUM ON *The Foot*

NUTT • WHITMAN • OPPENHEIMER • TRUSLOW

### THE TREATMENT OF PRONATED FEET

JOHN JOSEPH NUTT, M.D., F.A.C.S.

New York, N. Y.

**L**IMITING ourselves to feet having no pathological condition other than atrophy, our object is the restoration of function. Once that is accomplished the foot is cured. Any treatment which has not that object falls short of a cure, although a degree of comfort may be had by supporting devices and by operations which relieve the strains.

Before function can be restored, it is absolutely necessary that normal movements in all the joints be established. It will generally be found that dorsal flexion at the ankle is limited to between 90 and 95 degrees. This must be increased to the normal flexion of about 85 degrees. Otherwise the forefoot is forced into abduction when the leg is flexed at the ankle and a traumatism is inflicted on the forefoot at each step. The establishing of a normal range of motion at the ankle joint may be accomplished by stretching the calf muscles or by tenotomy or tendon lengthening of the tendo achillis. The lever arm between the axis of the ankle joint and the attachment of the heel cord is so short that not much lengthening of the muscles is necessary. Sufficient lengthening can usually be obtained by use of the traction shoe. The advantage of stretching the muscle over operation on the tendon is the freedom from confinement in plaster of Paris and the consequent postponement for six weeks of muscle training and development. Some of the muscles, especially the tibials, are atrophied. They have to be strengthened, and all the muscles have to be trained to the job which they have neglected.

I do not think much of electricity or vibration or massage to strengthen these muscles, nor do I think much of prescribing exercises to be done 50 or 100 times a day. They do help in some cases but are rather useless if the muscles are not to be used normally the rest of the day and are unnecessary if the muscles are used normally. There are two aids in training the muscle and joint sense in the way of normal use of the foot: adhesive plaster and shoe wedges.

Adhesive is not applied to immobilize, as for a sprained ankle. It is used to resist the tendency to abduction and to help the weakened tibialis anticus and posticus. It is applied with the foot adducted, dorsal flexed and slightly inverted. One end of a one or two-inch wide strip is made to hold the forefoot and the other end extends up the inner side of the leg to the knee.

The wedging on the shoes is to prevent abduction and eversion. In adduction, the os calcis is tilted upward at its anterior end and slightly rotated inward on a longitudinal axis. Therefore a wedge is placed under the medial anterior corner of the heel and, as the first metatarsal is raised in adduction, a wedge is placed under that bone, reaching down to the horizontal plane of the sole and heel after the heel wedge is applied. This sole wedge does not invert the foot. Its object is to support the first metatarsal in the position of adduction and to prevent abduction. The shank of the shoe must be not only flexible but narrow as well to permit free movement in adduction and rotation.

Most people toe out more or less and this, whether it is done by abduction at the mediotarsal joint or by rotation of

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the entire leg at the hip, prevents normal functioning of the foot. As toeing in slightly does no harm, instructing the patient to toe in when on the feet is helpful.

It must not be forgotten that physiological structures differ from inanimate material. No matter how well developed, they are subject to fatigue and exhaustion. Periodic rest and exercise are necessary for the continued healthfulness of bone, ligament and muscle. This fact should be impressed upon all patients having pronated feet. An excellent way to do this is to cite the heart as an example of an organ taking complete rest between periods of work. That is the reason standing is so much harder on the feet than walking. To prevent exhaustion while

standing the structures must be given rest. This can be accomplished to some extent by frequent changing of the structures which are active: standing for a few minutes with heel and toe on the ground, then with the heels raised a trifle and then on the outer borders of the feet.

### Conclusions

The treatment of pronated feet should aim to restore normal function to all the structures. This is best accomplished by overcoming abnormal restrictions to movements, re-education of muscular and joint sense, strengthening of weakened structures and prevention of exhaustion.  
MEDICAL ARTS BUILDING,  
57 WEST 57TH STREET.

## THE CONSERVATIVE TREATMENT OF THE *Weak Foot*

ARMITAGE WHITMAN, M.D., F.A.C.S.

New York, N. Y.

THE greatest obstacle to the efficient treatment of the weak foot is common to that of all postural deformities. It is that neither the medical profession nor the public realize that the treatment of the feet begins in the head. One may check the development of a spinal curvature or round shoulders by putting a child into harness, and one may do the same by applying braces to the feet, but unless it can be impressed upon the patient's mind that a certain posture or a certain gait is for some reason desirable, the moment the restraining apparatus is removed comes the inevitable relapse.

I have always been interested in the disdain with which all foot troubles are surrounded. No matter what they are, or how severe, they are shunted off to the chiropodist, the podiatrist, or the brace maker. I asked a senior surgeon in the oldest Boston clinic several years ago

what treatment they accorded weak feet, and was answered, "Anything to get rid of them."

I think most of you will agree with me that the military mind is, to say the least, conservative, yet it was long ago penetrated by the importance of the soldiers' feet. Napoleon said that an army marches on its stomach, but it is equally true that it marches on its feet. Kipling's famous character, Mulvaney, was severely disciplined for getting a blister on his heel. During the Great War more than a certain percentage of trench feet in a battalion was a matter for disciplinary action. Why does not this sense of proportion carry over into civil life? Of what use is a clerk in a store, an elevator operator, a policeman, if his feet hurt?

I am convinced that the answer to this question lies in centuries of snobbery. In practically every civilization society has been sharply divided into two classes—those who walked and those who were

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carried. Chinese ladies' feet were bound because they were not needed for a locomotive purpose. Roman knights were called "equester" and French knights "chevalier"—men who rode horses. "Chivalry," which gave its name to an European age, has the same derivation. Coverings for the fashionable foot were, therefore, designed with no reference whatever to utility, and were dictated solely by fashion. The exhibit of arms and armor at the Metropolitan Museum offers interesting evidence on this point. Foot troubles belonged to the "vulgus" or mob. It is vulgar to have them and vulgar on the part of the doctor to treat them. As long as that general attitude on the part of the public and the profession persists there is little hope that the feet will get better treatment than they do at present. It should be one of the prime duties of the members of this section to see that attitude dispelled.

THE subject allotted me is "The Conservative Treatment of the Weak Foot." I assume that the term "conservative" implies "non-operative." I concede that there are certain types of weak feet—congenital flat feet, accessory tarsal scaphoids, and certain cases that for no reason we can assign fail to yield to treatment—that will always have to be operated on. I should simply say of this small group that in my opinion the older the patient is at the time of the operation the greater will be the chances of its success.

What are we to say of the great masses of men, women, and children who now either go unrecognized and untreated, or who vainly seek relief at the shoe store, the drug store, the chiropractor, and the podiatrist?

I dislike broad statements, but I think it may be said of this group that as a group they turn their toes out. They use their feet in an attitude of valgus. Their weight falls on the inner, the weak side of their feet. If you take such a patient standing in his natural attitude and drop a plumb line from the center of his patella, you will see that the line representing his body weight falls, not through the middle, but to the inner side of his foot. It is the attitude of fatigue. Ask him to place his feet parallel and roll them slightly to the outside, and his body weight, represented by the plumb line, shifts to the outer

strong side of the foot. The foot is then in the attitude of activity.

I have stated that the treatment of the foot begins in the head. All I have to do, therefore, is to demonstrate this simple proposition to any patient and my task is finished. All he has to do for the rest of his life is to stand and walk with his feet in the attitude of activity, and sit down when he gets tired of so doing. How beautifully simple. The only catch in the proposition is that the patient won't do it. After years of raging at the obstinacy of the weak-footed I began to wonder why it was so stubborn. I think the answer is that walking, once acquired, becomes an automatic act with which the brain does not concern itself. Parents will send children of three and four to learn tap dancing and be astonished at their precocity. The child has his entire attention focussed on what he is doing at the moment. Ask parents to teach their children to walk properly, and they throw up their hands in horror. They will send these luckless infants to physical educators three times a week to be taught to walk barefoot, to pick up marbles with their toes, and other such fascinating pursuits, and the next morning if not the same afternoon will see them clumping heavily about, turning out their toes and banging on their heels.

One way of teaching a retriever dog not to mangle game is to stuff a dead bird with pins and have him fetch it. After he has pricked his mouth a few times he handles birds gently. A dog trainer would reform a child's gait in short order by putting a small tack in the heel of his shoe. I think it would not be long before, as the Bible says, he would "walk delicately—like Agag." But I am afraid that such simple methods are beyond my reach. A curb bit on a horse is in theory an instrument of torture. In practice it is only used to keep the horse from running away. While possibly inhumane, it has long been recognized as a necessity.

We concede, then, that while treating the feet by the use of the head alone is possible in theory, it rarely works in practice. Therefore, much against our wills, we are driven to seek the assistance of some apparatus that will do for the child what the curb bit does for the horse. What can we devise that will give support to muscles weakened and stretched from faulty use, and act as a gentle curb when the

patient relaxes and turns out his toes?

I can hear a premonitory groan from the majority. The only apparatus that I know that fulfills those conditions is the brace devised by my father, Dr. Royal Whitman. It supports the longitudinal arch of the foot, and by pressure from the outer flange forces the patient to walk and stand with the feet parallel, and the body weight to the outer side.

It is almost impossible to pick up any treatise on the feet that does not decry the use of rigid steel supports. As for applying such apparatus to the tender feet of growing children, such a practice is alleged to be barbarous.

If such an opinion is so widely and wildly held, why am I backing such a very dead horse? For the same reason that some philosopher refused to comment on the failure of the Christian religion. He refused, he said, because the Christian religion had never been tried.

Taking a cast of a weak foot, in the non-weight-bearing attitude, trimming and building out the positive mold of the foot, building up the inner border of the shoe, having the brace properly made, applying and subsequently adjusting the brace, call for as much art as I know of in any field of orthopedics. It is a tedious, difficult business, and few have the patience to learn it. Few men here would attempt to make themselves a suit of clothes. Yet how much more delicate a matter it is to apply a rigid steel support to the weight-bearing surface of the foot.

When I said that this had never been tried I exaggerated. It has been tried by my father and by me with varying degrees of success. No treatment is uniformly successful. Since my father instituted it at the Hospital for the Ruptured and Crippled the number of cases so treated has risen from zero to 4,739 in

1929, although the conditions for its successful application are far from ideal. It has been tried by my father's brace maker with such success that many years ago he gave up making other forms of braces, and now advertises in the *Medical Week* that he devotes himself solely to making Dr. Royal Whitman's braces. I think some of his patients must come from doctors.

What are some of the don'ts in connection with this treatment? The braces must never be applied to stiff or sensitive feet. All pain and stiffness must be done away with by preliminary manipulation, strapping, or even immobilization in plaster of Paris. They must never be put on and worn continuously from the beginning. They should be worn for increasing periods every day for a week to ten days, and the patient instructed to take them out when they hurt him, tire him, or even bore him. The patient must return at the end of such a period, wearing the braces, so that they may be properly adjusted. The treatment must at all times be supplemented with brains—both the patient's and the surgeon's. The braces should be discarded as soon as their object has been accomplished. This goal must be ever kept in mind.

I hate the use of apparatus as much as any one in the world. Every time I look at my daughter, whose teeth are being straightened, my heart bleeds. I have stated, and I repeat, that the treatment of the feet begins in the head, and I look forward some day to curing a case by hypnotism.

To me, however, the millennium seems very far away, and while I shall continue to strive for it, in the meantime I shall continue to treat weak feet conservatively by the use of Dr. Royal Whitman's brace.

71 PARK AVENUE.

## THE VALUE OF RIGID BRACES IN FOOT CONDITIONS

EDGAR D. OPPENHEIMER, M.D., F.A.C.S., New York, N. Y.

**B**Y foot braces, I mean plates of the type of Whitman and Shaffer plates, also

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the Roberts and the so-called Combination. I mention these specifically as I believe them to be the best models.

The conditions I enumerate are: everted

feet, weak feet, sensitive feet, inflamed feet and, to a certain extent, paralytic and deformed feet. I purposely omit rare foot conditions as the subject under discussion is a consideration of the usual common ailments.

An everted foot is one that has more valgus than the average. The os calcis is outside of the mid-ankle line. The arbitrary geometric angles of the tarsal bones must be accepted as normal as they exist in two-thirds of the cases. Whatever nature has thus given us is the structure we must utilize to our purpose and we must adapt ourselves to it. No law fixes the amount of weight which should be carried on the inner or outer side of a man's foot. His own structure and muscles determine this relationship. Most standards are therefore too high, too geometrical and arbitrary. Only if the inverted or straight foot functions better than the everted foot are we justified in attempting to improve upon nature.

A more important factor is the strength of the foot. A weak foot will have an abnormal amount of motion and sagging and usually secondary sensitiveness. The degree of motion can only be considered abnormal if it occurs in less than fifteen per cent of the cases. On use, the sagging occurs in the direction of valgus, but it is the weakness and sensitiveness, not the anatomy, that causes difficulty. Weakness and sensitiveness of the feet is more physiological than anatomical. When the use to which the foot is put proves to be an excessive trauma, the sensitive foot will go into an inflammatory condition, a traumatic arthritis or strain. Low grades of arthritis, infectious or otherwise, stimulated by trauma, may thus end up as fixed everted feet.

**F**OOT braces have two ends in view: first, correcting or maintaining the shape of the foot; and second, relieving the foot of discomfort and stress. In this way foot braces are dominantly corrective and palliative.

In children, where correction is possible, the Whitman plate is indicated. In adults, where no correction is possible, Whitman plates are entirely impractical, are too severe, and do not accomplish either objective. Only in the severe cases of arthritis are combination plates practical. We

used to turn the rigid feet of adults under anesthesia, encasing them in plaster casts, later putting them in Whitman plates to maintain the correction. This is good when the condition is not one of long standing, but I cannot see where we accomplished anything in changing the anatomy of an adult's feet when he always had had an everted or valgus foot.

The Whitman type plate has as its object throwing the foot into varus or mid-line and has the same mechanics as raising the inner border of the shoe. It should not produce a pes cavus, in raising the so-called arch. This is incorrect and accomplishes nothing desirable. Paralytic and weak feet have high arches. To be effective, the plate should be considerably longer than those commonly used. The edge must extend past the point of effect because it is soon buried in the sole of the shoe. The shorter the plate, the easier to fit, and the less effective. I augment my plates with a Roberts hook to prevent their being turned in the shoe. I attempt to throw the foot over, not to raise the middle. Of course, my plate will raise the scaphoid when I attempt to throw the foot over. Conversely, raising the scaphoid throws the foot into varus. I consider the Whitman a purely corrective plate and not worn for comfort. Its use should be limited to those in whom correction can be obtained, that is, up to sixteen or eighteen years. Most favorable results are seen in very young children, one to three years.

I fully realize that there is a very distinct limit to the amount of bony correction obtainable, but the extreme strain is certainly relieved, and the continuous forced walk can only lead to a more inverted position in later life. We do not make feet normal or entirely correct them. We use plates only on the extremely everted feet, and all told, the group remains everted, but not so badly as if we had failed to use plates over long periods. It is necessary, in order to obtain a satisfactory result, to turn the feet consistently throughout childhood. A short period of plate use would be indicated only in temporary conditions, such as inflammation and weakness after fevers. Where the scaphoid is a prominent bone, it will continue to stay so, and even become more so, due to stimulation of the pressure or wearing down of the fat around it. A prominent scaphoid is in itself objection-

able only esthetically; very rarely does it interfere with use of the shoe or function of the foot. A fairly straight or balanced foot is desirable over extremes. An attempt should be made to obtain it for its own sake, but not at the expense of making a sensitive or weak foot.

In the adult we have an entirely different problem. A corrective plate is out of place; no correction can be obtained. A supportive plate is indicated when the symptoms warrant. When an adult complains of pain due to strain, the complaints can be relieved by equalizing the stress of the foot joints; a metatarsal or Shaffer plate is used which should not be uncomfortable. It should divide the forces so that they are not exercised in full through each of the tarsal and metatarsal joints. It blocks use of the individual joints, uses the foot as a whole as a one-piece mechanism and distributes the strain.

A metatarsal plate does not prevent use of the foot muscles. It aids the muscles to a function they are able to maintain. It does not produce atrophy, and it is indicated only where the muscles are inadequate or the tissues too sensitive for the muscles to act. It is more useful in standing than in walking, for in the latter case the muscles are functioning.

Foot braces or plates must be fitted properly, have no cutting edges, and no points of excessive pressure. The orthopedic surgeon must have the mechanical skill to shape his plates as he desires, and if he cannot, like a mechanic, hammer them out of a flat piece of metal, he certainly cannot do it from an already bent one. Plaster casts are useful in shaping approximate forms. It makes little difference how the models are made. The allowances in the curves from the absolute model depend upon the flexibility of the feet, bony prominences, position of foot pads and amount of correction desired. I believe it possible to use stock plates from an adequate stock, but it is much easier and more practical to work from plaster models, particularly with the services of a mechanic. It takes experience successfully to fit plates, and the ordinary mechanic cannot handle or control the patient.

As to flexible plates such as composition, spring and leather, when they stand up and maintain their shape, they act as a fixed brace. Unfortunately, they are usually too short to be effective and they

do not keep their shape. They are, in most cases, more comfortable at the start and easier to fit and wear, but they gradually give way, and the most misshapen feet are found in the shoes with leather inlays. If a man is more comfortable in these than in a solid plate, he does not require a solid plate, or his plates are improperly made. In the enthusiasm to obtain a correction, the plates may be made too severe. Where there is much disability or suffering, I find the metal plates superior. Where the patient is simply touchy and sensitive, the less done the better.

Exercises to strengthen the feet and to encourage correct walking are certainly indicated for children. Attempts should be made to make children foot conscious, and exert their musculature, but they will not change the shape of their feet. Unfortunately, the amount of effort necessary on the part of the parents shows the use of exercise to be impractical. The Whitman plate forces a more correct walk unconsciously and continuously. In adults, exercises are not practical in relieving foot complaints, except when the condition is functional, and then it should be treated as such. Whatever means are used then must act mentally, and not physically. This explains the success of fads, adjustments and treatments. These cases relapse until forced to seek a practical solution. Strapping feet gives considerable relief, is indicated only in temporary conditions, and is no solution to the weak foot problem.

### Summary

To summarize, a fair degree of correction is obtained in children by the prolonged use of corrective plates if started early. More correction is rarely justified, certainly not if obtained at the price of a fixed and sensitive foot. Combination plates should be used in adults for correction only in those cases where correction should be sought; that is, not for anatomical reasons, but only for the results of inflammation. In adults, Shaffer plates succeed in relieving discomfort by equalizing the strain on the foot joints. These plates will also give adults the maximum support and relief from foot strain, especially metatarsal complaints. Where the shape of the foot is not the cause of the complaint, it should be left as it is.

2 EAST 96TH STREET.

# SOME COMPLICATIONS OF DISABLED FEET

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In a former paper,<sup>1</sup> I discussed the simple conditions which result in Disabled Feet. This paper will deal with some complications. In the previous paper I stated that "adequate care of average foot disability requires:

- "1—An initial estimate of the needs of the patient;
- "2—Means of meeting immediate pain, often by adhesive plaster strapping;
- "3—The temporary use of easily raised office-made light insoles;
- "4—More durable, but not bulky, instrument maker's insoles;
- "5—An understanding of proper shoes;
- "6—A faithful follow-through of ten-minute-a-day foot exercises;
- "7—Gradual withdrawal of the use of insoles."

These principles are repeated because, in the treatment of the complications of disabled feet, they are important factors. In average foot disability, operation is rarely indicated; in some of the complications it is often needed.

## *Spastic Flat Foot*

This is a condition in which there is marked imbalance between the muscles which normally hold the plantar arch, the metatarsal arch and the toes in position and the muscles which oppose this. The calf muscle (the tendo achillis group), the tibials, the toe flexors and the plantar muscles are relaxed; the peronei and the toe extensors are contracted. The mechanical result of this imbalance is to hold the foot in valgus (flat foot); the metatarsal arch is depressed and the toes are extended. This mechanism differs from ordinary flat or weak foot only in degree and to some extent in treatment. The most marked characteristics are that the tendons holding the foot in the deformed position are spastic, resisting (often with pain) even simple manual correction of the foot,

and the tendons involved stand out as tight cords beneath the skin.

The treatment obviously is first to restore and then to maintain the balance between these "antagonistic" groups of muscles. In the milder cases the principles of treatment outlined for ordinary weak feet are often sufficient, but the adhesive strappings and foot paddings should be kept up longer—one week strappings may continue at weekly intervals for three to four weeks—and the insole foot bracing and the daily foot exercises (when pain has ceased) should be continued longer than in the simpler forms. But much time may be saved to the patient, in the severer and more painful types, by the application of plaster of Paris dressing, sometimes with the use of a general anesthetic, from the high calf to the toes, the deformity being at the same time corrected and the patient remaining off the feet for two to three weeks. This quiets the spastic muscles and, by partially relieving the stretched condition of the arch-supporting muscles, does much toward restoring their "tone." Afterwards such use of the other means—insole supports, muscle re-education and gradual withdrawal of artificial supports—must be carried through. Operation on spastic feet is rarely necessary.

## *Rigid Flat Foot*

—including *Arthritic Foot and Traumatic Foot*. Just as spastic flat foot is generally a progression from ordinary weak foot, so rigid flat foot is usually a further advance from spastic flat foot, although a general arthritis or some fracture or other trauma may be a very real complication. As the name implies, the foot is held rigidly in abduction, and although the muscle imbalance, described in spastic flat foot, is equally if not more marked, the bone deformity and the complications, if they exist, are of first importance.



In treatment of rigid flat foot, the history and the local physical examination are necessary. X-ray films, taken in more than one plane, are helpful. If general arthritis and traumatic lesions can be eliminated, the rigid flat foot should be given a general anesthetic, manual twisting and plaster of Paris dressing from calf to toes, with the foot in a slightly over-corrected position; and this dressing should be maintained, with the patient off his feet, for one month. After removal of the plaster dressing the brace support, the muscle re-education and the gradual withdrawal of foot support should be maintained for many weeks.

Arthritis calls for the care of this condition by diet, by hygienic upbuilding, by discovery of and removal of any focus of infection that may be practicable. Tempting as it may be to the surgeon (used to reconstruction operations), open operation should not be used on the arthritic foot, unless and until the general arthritis has subsided. On the other hand, arthritic flat foot, whether rigid or not, is often much relieved by efficient and gradually raised insole foot supports, and this relief should not be denied because it does not cure the underlying cause.

Rigidity of the foot, due to traumatism—fracture-dislocation, localized periostitis—should be treated according to the location and extent of the injury. The x-ray study plays an important part in diagnosis. If the injury has left a deformity which is correctible by operation, whether open or manual, and if it is uncomplicated by arthritis, such aid should be given. The details of this are too individualistic for inclusion in this paper; but it may be said that many a foot, crippled by trauma, is restored to a high degree of efficiency by proper operating. On the other hand where, in these cases, operation is refused or otherwise contra-indicated, careful study of the faulty balance of weight bearing and the correction of it by proper insole bracing may bring to the patient a high degree of comfort and usefulness. It is to be regretted that this is not well enough appreciated by the man on the street, and sometimes by the medical profession.

### *Paralytic Feet*

This is a large subject and may only be touched upon. It is well known that infantile paralysis often results in more

or less localized disability and deformity. Study of many cases reveals that the lower extremity (and the ankle and foot in particular) presents a high percentage of these disabilities and deformities. As the function of the physician includes the attempt at restoration of body efficiency, it is obvious that the restoration of the paralytic disabilities is of great importance. When we realize that ability to stand and walk is an important factor in body efficiency we must see that the rehabilitation of the paralytic foot is of prime moment. The disabilities and deformities of the paralytic foot are many, but may be divided into (a) flail-foot, or a condition consisting practically of relaxation of the muscles controlling the ankle joint, and (b) various deformities resulting from unequal muscle balance of the ankle and foot. These are club foot: equinovarus; equinovagus; calcaneovalgus—and hollow foot.

As to treatment, bracing comes first; then bracing and muscle re-education, and finally reconstructive operation. Bracing is always important. Deformities should be prevented, by preventing unequal muscle recovery from pulling a foot segment toward the weaker side. Only bracing will do this. Proper bracing also hastens recovery by supporting weaker muscles. Muscle re-education goes hand-in-hand with bracing. The details of this may not be included here. The reconstructive operation certainly has its place in the care of the paralytic foot. Many operations have been used by orthopedic surgeons and others and much has been written about them. Here we may only state that the muscle transplantation operations have been largely superseded by bone reconstruction or bone stabilizing operations. Often muscle transplantation and bone reconstruction are both used in the same operation. My experience leads me "to believe that no age and no lapse of time since attack precludes promise of a high degree of improvement in body efficiency, if the general condition of the patient warrants operative procedure."

### *Hallux Valgus*

Hallux valgus, often erroneously called "bunion," is a deformity of the first metatarsal bone and of the great toe in which the great toe joint is pointed markedly inward from the inner border of the foot.



At the great-toe joint there is a sharp angle, often as much as ninety degrees, between the first metatarsal bone and the two bones of the great toe. Sometimes the seat of the deformity is at the proximal end of the first metatarsal bone—metatarsus primus varus<sup>1</sup>—with an (probably congenital) abnormality at the joint between the internal cuneiform bone and the first metatarsal. This abnormality is of such a nature as to make the inward direction of the first metatarsal bone inevitable; and the opposite, outward carriage of the toe (with the angle at the great-toe joint) is secondary to the varus of the first metatarsal bone and is directly caused by the wearing of the shoe. However, there are many cases of hallux valgus in which the x-ray does not reveal the anatomical variation at the proximal end of the first metatarsal bone. In these cases the outward (toe-ward) carriage of the great toe is primary and the shape of the shoe, especially the center-pointed shoes of women, must be considered the extrinsic cause. A marked tightening and outward displacement of the principal extensor tendon of the great toe is a factor in this deformity. In any case the deformity is annoying, often causes corns and callus at the inner side of the great-toe joint, may cause the painful secondary bunion (or inflamed great-toe joint), always causes spread and depression of the metatarsal arch of the foot, and makes the acquisition of comfortable shoes a difficult problem.

**A**S TO treatment, a patient may prefer the condition to operation, in which case the surgeon may do much to mitigate it. The patient must get shoes which are adequately shaped to accommodate the deformity. The surgeon may supply an insole foot brace which, with adequate support for the plantar arch and with forward projection of the "filler," supports and lessens the metatarsal arch depression. But this must be considered a makeshift. It will in no way correct the deformity. As the properly planned and executed operation is effective it is decidedly to be preferred. Any operative procedure must be undertaken with the full appreciation that the distal end, the head, of the first metatarsal bone is a most important structure—one of the three

bases of the tripod upon which the foot rests—and must be disturbed as little as may be. Poor understanding of this has, I believe, led to most of the failures following operations for hallux valgus. If the x-ray has demonstrated metatarsus primus varus, I attack the proximal end of the first metatarsal bone<sup>1</sup> through an incision in the dorsum of the foot just over the cuneiform-metatarsal joint, chisel away the wedge-shaped bone at that joint, and align (which I then may) the first metatarsal bone parallel to the inner border of the foot. With a small incision just back of the first-second toe space, on the dorsum, the tight tendon of the long extensor of the great-toe joint is cut and the great toe may be manually moulded into alignment with the inner border of the foot. If, when this is done, there appears to be too much redundant bone on the inner side of the head of the first metatarsal bone, some of this may be chiseled away on the side, but not on the weight-bearing surface. Plaster of Paris dressing from mid-calf to toes, with special care to preserve the corrected first metatarsal and the corrected great-toe joint, is applied when skin sutures are removed. This plaster should remain on for four to six weeks, as the break in the integrity of the cuneiform-metatarsal joint must be cared for. An adequate foot brace, with a minimum of metal base, should be ready for use on the removal of the plaster dressing. If the x-ray has shown that there is no metatarsus primus varus present, a much simpler procedure is undertaken. Through a dorsal incision just over the great-toe joint and a trifle forward, the proximal half of the proximal phalanx of the great toe is chiseled away, after cutting down to the joint and retracting the tendons. Having conserved the articular cartilage on the head of the first metatarsal, free motion will result. In this incision the tightened tendon of the long extensor of the great-toe joint may be severed, although the shortening of the great toe may obviate the necessity for this. As in the operation for metatarsus primus varus, redundancy of the inner edge of the head of the first metatarsal may call for its removal. Plaster of Paris dressings are not necessary for this simpler operation; but the bandaging should include the great toe fixed in the corrected position. Weight may usually be borne on this foot in three weeks and

free use of the foot be possible by four weeks from the operation. As in the other operation a light but strong foot brace should be ready for follow-through for some months.

### *Hallux Rigidus*

This is a condition in which there is partial or complete ankylosis at the great-toe joint. It is usually associated with arthritis or with fracture or dislocation involving the great-toe joint. In either case, the x-ray films usually show arthritic or traumatic bony outgrowth at the margins of the articular surface of either or both of the bones forming the joint. The passive extension of the great toe, incident to walking, is the cause of pain.

The treatment is mechanical or operative. The mechanical treatment consists in so placing a support, back of the joint and transverse to it, that walking will minimize the passive extension of the great toe. The crudest way to do this is the army method of tacking a stiff leather cleat underneath and across the sole of the shoe. As a quick makeshift it is often effective. But better than this is to make a well-fitting insole brace to which, using the proper sole contour former, is added a transverse piece of leather so placed as to be just back of the big and the little toe joints. Often this is all that is needed to relieve the pain. But if it does not relieve pain and if the symptoms are severe enough to warrant it, the operation of mobilizing the great-toe joint is indicated. This consists in completely opening up the joint, in removing all bone-blocking exostoses, rounding of the head of the first metatarsal bone, and finally in the placing of autogenous fascia lata over the prepared head of the first metatarsal bone in such a manner that it will act as does the destroyed articular cartilage. This should not be done if there is active arthritis.

### *Hammer Toe and Claw Toe*

Hammer toe is a deformity of any of the four lesser toes of the foot (although fairly rare in the fifth toe) in which the second joint of the toe protrudes upward and is more or less fixed in that position. Secondary to the malpositions of the phalanges is a tightening of the tendon of the extensor communis digitorum and of the short flexor of the toes. The head of the corresponding metatarsal bone is

forced downward; and if the three middle toes are hammer-toed there is reversal of the metatarsal arch. The upward prominence favors the growth of a corn and the depressed metatarsal head causes a sole callus—both of which become very painful. The joint involved may become actually ankylosed. Claw toe is a deformity in which the toes are drawn still further backward on the dorsum of the foot, aggravating the metatarsal reversal and the corns and callus. The contraction of the tendon of the extensor communis digitorum may become so marked as to make it impossible to straighten out the toes, although there is practically never ankylosis of the joints of the toes. Claw toe is most common in the fifth toe and, if several toes are involved, the fifth will be the most retracted, with the fourth, the third and the second toe each less and less so. The deformity of either hammer toe or claw toe is always annoying and may become painful because of the corns and callus, and it is always difficult to get properly fitting shoes.

The treatment of either condition is similar although that for claw toe of the fifth requires a slightly different technique from the others. If operation is refused, the insole foot brace, described as for hallux valgus, will somewhat mitigate the secondary metatarsal arch reversal, but will not lessen the toe deformities; and shoes with ample vamp space will lessen the pressures on the prominence of the toes and delay the formation and reformation of toe corns, but will not cure them. Operation is the only, and practically always the complete, cure for either condition. And right here I would caution against the amputation of one or more of these deformed toes. Amputation of a toe is never to be tolerated except in the presence of gangrene or a virulent toe infection which otherwise would endanger the limb or even the life of the individual. And amputation, by releasing important tendon attachments, definitely lessens the support to the long or plantar and the transverse or metatarsal arches of the foot. The operation to be preferred is simple and conserves the tendon support. An incision is made on the dorsum of the toe over the proximal phalangeal joint, the corn having been pared down as much as may be a few days previously. Dissection is made to the extensor tendon, which is drawn to one side, continuing

into the joint. With bone-cutting forceps, the distal half (sometimes the distal two-thirds) of the proximal phalanx is cut away, and the two distal phalanges are allowed to slide back against the stub of the proximal phalanx. In this sliding back the two tendons involved—the extensor and the flexor—will have become so relaxed as to allow the complete elongation of the toe in the neutral position between flexion and extension. Here, too, as the articular surface of the middle phalanx has been uninjured, the resulting condition will insure free movement of the toe. Each toe involved will be operated on in the same way. If operation is decided upon it is best to operate upon all toes which are in any way involved. I have stated that this is the operation for both hammer toe and claw toe. But the clawed fifth toe is often not only retracted but lies sideways across the dorsum of the fourth toe, which latter in this case will have escaped the deformity because of the pressure of the fifth toe upon it. A fifth toe, so askew, may require the removal of the entire proximal phalanx to attain alignment and shortening. Plastic adjustment of the skin on the outer border of the foot may be indicated to compensate for the marked stretching which it has sustained. The dressing for either of these operations consists in a tongue-depressor splinting on the sole and along the under side of each toe involved and careful bandaging which is so devised as to maintain the corrected

position of each toe. Care in this bandaging and the bandaging after each dressing is important. No weight-bearing surfaces have been involved and the integrity of no tendon has been interfered with. The patient may often bear weight on the foot in two weeks and get the full use of the foot in three weeks. An insole foot brace should be ready for first weight-bearing as metatarsal reversal has not yet been corrected, although much of the causative factor has been removed. And a large shoe cut down to the farthest tip of the vamp should be used for two to three weeks.

SOME complications of disabled feet have been discussed. Others, such as endarteritis obliterans, tuberculosis of the foot and so-called "athlete's foot" have been omitted, important as they are, because they are so much a part of general medicine or of other specialties as to seem inappropriate in this paper.

### References

1. Truslow, Walter: Disabled Feet, Med. Times and L. I. Med. J. 63:173 (June) 1935.
2. *Idem*: Reconditioning the Polio Delect, Am. J. Surg. 29:4-10 (July) 1935.
3. *Idem*: Metatarsus Primus Varus or Hallux Valgus? J. Bone and Joint Surg. 7:98-108 (January) 1925.

### GONOCOCCIC ENDOCARDITIS: REPORT OF CASE WITH POSITIVE BLOOD CULTURE

ISIDOR COHN's, Brooklyn (*Journal A. M. A.*, Nov. 14, 1936), case of gonorrheal endocarditis illustrates the difficulties often encountered in arriving at a diagnosis. In fact, were it not for the positive blood culture, in itself a rather rare observation, the diagnosis could not have been made, for there was no history nor anatomic evidence of gonorrhea except possibly the enlarged prostate and seminal vesicle. The positive complement fixation was contradicted by the equally positive Widal, so that the serologic reactions only confused the clinical picture, and the postmortem examination, while confirming the clinical diagnosis of ulcerative endocarditis, gave

no hint of etiology. There was no evidence of previous cardiac damage or defect, so that this is one of those exceptional cases in which gonococci, invading the blood stream, have caused inflammation of a normal endocardium. Although the demonstration of gonococci in the valve would have been further evidence in this case, the failure to do so is explained by the fact that no active search was made for them until after the report of the last blood culture, by which time these fragile organisms could readily have been replaced by the secondary invaders found on culture—*Bacillus coli* and *Staphylococcus aureus*. The case illustrates the importance of repeated blood cultures, and it is interesting that growth was finally obtained on ordinary Savita agar and bouillon, after failure with special mediums.

## Clinical Notes

### THE REMOVAL OF SUPERFLUOUS HAIR BY ELECTROLYSIS

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THE removal of superfluous hair by the galvanic current is widely known as "electrolysis." We shall therefore employ the term in dealing with this operation.

This procedure aims to destroy the lining of the hair follicle, the papilla, and the root of the hair. Some have employed x-ray, and others radium, in the treatment of hypertrichosis. Recently the high frequency current has been employed for the same purpose in the form of electro-desiccation, but this method is poor, and is being abandoned. The results from x-ray and radium, as far as I can judge from the patients I have seen, have been "good," but the areas treated have become so disfigured that they look more ugly and more repulsive than the worst hirsuties (hypertrichosis). The author believes, therefore, that electrolysis should be preferred to any other method. It is safe, gives satisfactory results, and does not disfigure the face.

Electrolysis belongs to the realm of minor electrosurgery. Hence the operator should do this work under antiseptic precaution.

#### *Prerequisites for epilation by electrolysis:*

These are: 1) a galvanic apparatus, 2) a needle, 3) a needle holder, 4) a dispersive electrode, 5) epilation forceps (tweezers), 6) a magnifying glass, 7) a good source of light (a floor lamp), 8) alcohol, and 9) an antiseptic solution.

#### *The author's technique:*

The patient lies on her back on a straight table of a height suitable for the sitting operator. No pillow is placed under the head. The dispersive electrode, consisting of a pad 6 inches by 4 inches (or of smaller size), previously soaked in plain warm water, is attached to the positive pole, and placed at the patient's side

in such a way that, with her outstretched arm, the palm and fingers fall conveniently on it. She is instructed to bring the hand in contact with the pad when the operator signals "on," and lift it off when he signals "off." The region of the face to be treated is cleansed with warm soapsuds by means of cotton moistened in the soapy water, and gently dried. It is important to caution the operator to do electrolysis on a cold face. The patient who comes for treatment in cold weather rests until her face is well warmed.

#### *Position of the Patient and the Operator:*

The author faces the patient, whose face is illuminated by a floor lamp.

#### *The magnifying Device:*

It is important to emphasize that electrolysis should never be performed without the aid of some magnifying device. A binocular loupe is employed by the author.

#### *Milliamperage:*

The strength of the current employed in electrolysis, i.e., the amount of milliamperage, depends on the thickness of the hair, on the reaction of the patients' skin, and on the reaction of the various parts of the face (e.g., the upper lip scars more easily than the chin). The milliamperage, therefore, must be adjusted to suit the individual case and area treated. The author usually employs a current strength ranging from 1 to 1½ milliamperes. Occasionally a stronger milliamperage is used. For the upper lip ½ to 1 milliamperage should be sufficient. The milliamperage is adjusted before the treatment is begun. This is accomplished, after the current is opened and gradually increased, by bringing the needle in contact with the dispersive electrode or with the patient's

hand while the latter rests on the electrode. The needle is then cleansed with alcohol. In order to assure himself of the exact milliamperage he is employing in his work, the operator glances at the millimeter while the needle is in the follicular canal.

#### **The Needle\*:**

The author uses an irido-platinum needle. For the removal of some very fine hair he employs McKee's fine steel needle. The needle is placed in the needle holder (having no interrupter). The latter is attached to the negative pole of the galvanic apparatus by a light conducting cord.

The operator holds the needle holder between the thumb and index and middle fingers of the right hand. He places the tip of the needle in the mouth of the follicle in the direction of the hair shaft. When the needle is in this position, he loosens the fingers and signals "on." The patient makes the contact. The operator then feels that the follicular opening dilates, and the needle slips into the follicular canal automatically by gravity of the needle holder. The operator has only to guide the needle in the proper direction of the hair shaft; otherwise it may pierce the sheath of the follicle or go beyond it. In areas where the needle holder can not be held in such a way that the needle may slip in automatically, the operator has to help the instrument by gentle manipulations to enter the canal and go in the right direction.

The needle is introduced as deeply as

\*The author advocates the single and not the multiple needle method. The latter method may seem quicker, accomplishing more work, but in reality the one who has had experience does a quicker and better job by employing the single needle method.

$\frac{1}{4}$  to  $\frac{1}{3}$  inch. A sense of resistance is an indication that the papilla has been reached. The needle is left there for about 20 seconds. This time can be learned by counting up to a certain number, say 45, at such a speed as to consume 20 seconds. Occasionally more or less time may be necessary for destruction of the papilla. The hair should, therefore, be tested by gentle traction while the needle is in the canal. This should be done about every five seconds with the epilation forceps, which the operator holds in his left hand ready for use. If the hair comes out easily, the follicle is probably destroyed. The operator gently pulls out the hair and signals "off." The patient lifts the hand from the pad and the operator withdraws the needle. If the latter happens to go in the wrong direction, and bleeding occurs, the traumatized area should immediately be treated antiseptically.

The appearance of a tiny bubble or a little foam at the entrance after several seconds is not a sign that the follicle is destroyed. Blanching of the skin or wheal formation as soon as the patient makes the contact indicates that the needle is not in the follicle, and it is withdrawn immediately. The hairs upon any location should not be removed too closely. After the treatment, which may last from  $\frac{1}{4}$  to 1 hour, a 50 per cent alcohol sponge is useful. For home applications lotio alba is prescribed.

It is advisable to exercise great caution at the first séance, by starting the treatment with but little amperage, say  $\frac{1}{2}$  milliamperage only, and noting the reaction of the patient's skin at the next visit, which takes place at intervals of 4 to 7 days.

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#### **GROSS HEMORRHAGE FROM PEPTIC ULCER**

For the purpose of arriving at a better understanding concerning management of these patients, LEON GOLDMAN, San Francisco (*Journal A. M. A.*, Nov. 7, 1936), made a study at the San Francisco Hospital of the 1,025 entries of 890 patients with peptic ulcer, from Jan. 1, 1928 to Dec. 31, 1934. Three hundred and forty-nine patients (38 per cent) entered the

hospital because of gross hemorrhage from peptic ulcer or developed this complication during the period of hospitalization. Of this number, thirty-nine (11.1 per cent) died of exsanguination, while an additional seventeen (4.9 per cent) died of conditions associated with the bleeding, such as perforation of the ulcer, pneumonia and cerebral or cardiac thrombosis, thereby bringing the total mortality of gross hemorrhage from peptic ulcer to 15 per cent.



# Cancer

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## REPORT OF FOUR CASES OF *Cancer of the Stomach* LIVING WITHOUT RECURRENCE TEN YEARS OR LONGER\*

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C. CLYDE SUTTER, M.D., F.A.C.P.  
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Dr. Jameson's patient was a woman aged 34 years, who was referred to him by Dr. William I. Dean. She complained of epigastric pain, aggravated by taking food, but relieved by lying down. She had lost about thirty pounds in weight over a period of five months. There was intermittent vomiting, and the vomitus was of the character seen in cases of prolonged gastric retention. There was a palpable mass at the pyloric end of the stomach. Celiotomy was advised for suspected pyloric obstruction and accepted by the patient. At operation the presence of the mass at the pylorus was confirmed. It was about twice the size of an English walnut and there was well marked dilation of the stomach. The regional lymph-nodes were enlarged. Gastric resection was done (Billroth #2 type). The end of the resected stomach and the proximal end of the cut duodenum were closed and a posterior gastro-enterostomy was done to restore the continuity of the gastro-intestinal tract.

Histologically, the lesion was found to be an adenocarcinoma upon examination at the New York State Institute for the

Study of Malignant Disease at Buffalo.

The postoperative convalescence was uneventful and the patient is alive and well now, twenty-eight years afterwards. The case was reported at the sixth annual meeting of the Committee at the Rochester General Hospital in 1930.

According to the Life Expectation Tables based on American Experience of Insured Mortality, this patient had an expectation of 32.5 years at the time of her operation. She has survived twenty-eight years; 86.1 per cent.

DR. SUTTER'S patient was a man aged 50 years, who was admitted to the Park Avenue Hospital on September 20, 1926, complaining of "digestive disturbance," characterized by gastric distention of three weeks' duration, and the loss of eight pounds in weight in four weeks. His father had died of carcinoma of the rectum at 76.

The distress came on one or two hours after eating and in the night and was relieved by soda. There was some gas. The patient on physical examination was found to be 16.0 per cent under weight. Abdominal distention, tremors of the eyelids and the tongue, and moderate ptosis were present.

\* Cases reported at the Twelfth Annual Meeting of the New York State Committee of the American Society for the Control of Cancer, held in Rochester, N. Y., December 8, 1936.



No clinical evidence of ulcer was found. The blood Wassermann was negative. Other laboratory studies were negative. On x-ray examination a filling defect was demonstrated on the anterior surface of the stomach, nearer the lesser curvature than the greater curvature. The radiologist interpreted this defect as the result of scarring from a chronic ulcer or from cancer. There was some evidence of hypermotility but no indication of obstruction.

Two days after admission, under ether anesthesia, an exploratory celiotomy was done by Dr. W. Douglas Ward. There was a tumor, "the size of a lemon," on the lesser curvature of the stomach about three inches from the pylorus. There was a depression in the center surrounded by a rim of dense tissue, "evidently an old ulcer." The ulcer had nearly penetrated the gastric wall and the stomach was adherent to the under surface of the left lobe of the liver. At the point of adhesion the liver tissue was hard from extension of the growth.

A partial gastrectomy (Polya type) was done with excision of the extension of the growth into the liver. The patient made an uneventful recovery and was discharged convalescent twenty-six days after admission, twenty-four days after operation. The histological diagnosis was adenocarcinoma of the stomach with extension to the liver.

In July, 1934, he had two attacks, characterized by chill followed by fever to 101.5° and jaundice. There were granular casts in the urine; there was a leukopenia (3,600 per cu. mm.) and a hemoglobin percentage of 32, giving a color index of 2.1 (*New York State Journal of Medicine*, July 15, 1935, 35:731).

This patient has been under the care of Dr. A. J. Price for the past two years, at least. Dr. Price reports that he is living without evidence of recurrence. He has had no repetition of the attacks of jaundice from which he suffered in 1934.

A review of the histologic study by the Committee of Pathologists this year confirmed the diagnosis of adenocarcinoma of the stomach. The sections made from the apparent extension of the growth into the liver proved to be inflammatory and showed proliferation and dilation of the bile ducts.

The expectation of life of a man aged 50 years is 20.91 years. He has already reached 47.8 per cent of his expectation.

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One of Dr. Scott's cases was a man, aged 66 years when admitted to the Strong Memorial Hospital, December 11, 1926. This case has been reported in detail in *Surgery, Gynecology and Obstetrics*, February, 1928, 46:199 (Case 3) and in *Annals of Surgery*, October, 1925, 102:586 (Case 1). The patient was living and without recurrence in December, 1936. His expectation of life at age 66 was 10.54 years. He has survived 94.8 per cent of his expectation.

The other patient was a man, aged 43 years when admitted to the Strong Memorial Hospital, November 4, 1926. This case has been reported in detail in *Surgery, Gynecology and Obstetrics*, February, 1928, 46:199 (Case 4). He was living and well in December, 1936, 38.4 per cent of his expectation.

These four cases are reported as evidence that cancer of the stomach is not a hopeless problem, and that if stomach cancer can be diagnosed early and completely destroyed, it can be cured. In order to arrive at a diagnosis when the cancer is a "little cancer," operable and curable, the physician and the surgeon must be suspicious of cases that appear to be innocent until it can be proved that they are in fact innocent.

## ROENTGEN THERAPY OF INFECTIONS

FRED M. HODGES AND R. A. BERGER, Richmond, Va. (*Journal A. M. A.*, Nov. 7, 1936), are of the opinion that every infection, whether it appears trivial and unimportant or well localized and delimited in the beginning, is a harbinger of potential sequels such as thrombophlebitis, lymphangitis and pyemia. The authors feel that irradiation plays an important part in diminishing secondary manifestations of the primary lesion.

## FRACTURE OF NECK OF FEMUR IN CHILDREN

From careful inspection of a number of roentgenograms illustrating injuries of the femoral neck in childhood JOSEPH I. MITCHELL, Memphis, Tenn. (*Journal A. M. A.*, Nov. 14, 1936), shows that the lesion may be divided anatomically into (1) epiphyseal separation, (2) transcervical fracture and (3) cervicotrochanteric fracture.

# Economics

Department Edited by Thomas A. McGoldrick, M.D., LL.D.

## PRINCIPLES TO BEAR IN MIND REGARDING *Sickness Insurance*

FOLLOWING closely upon President Roosevelt's hint to Congress concerning the creation of a Department of Public Welfare, Dr. Charles Gordon Heyd's timely analysis of the real effect upon medical practice of a system of sickness insurance carries much meaning.

Such a system of medical service would create a superior type of care, available only to the well-to-do, and an inferior type for those in the lower-income bracket. So the practice of medicine would be divided into classes, the measure of effectiveness of the medical service dependent upon the economic status of the patient.

And all this after our successful attainment of uniform training in the medical schools! Under sickness insurance there would be, ultimately and necessarily, two classes of schools, producing a superior and an inferior caste of physicians.

It is well also, at this time, to reiterate and re-emphasize the reasons why no system of sickness insurance that would do no violence to medicine is really practicable.

In the first place, a governmental system of sickness insurance that would be even remotely comparable in efficiency to the type of practice that prevails today would be prohibitive in cost (10 per cent to 14 per cent of the payroll).

In the second place, the insurance principle itself as applied to human sickness has no proper application save in the buying of hospital lodging and accommodation, food and general nursing care.

In the third place, "The insurance principle applied to the employment of professional services will fail because there is

inherent in it defects that depend upon the variability of human beings." Sickness insurance necessarily pyramids malingering.

In the fourth place, under such a system, all the features of medical service would never be under the control of the medical profession, but more or less under that of politicians. Third parties would necessarily come between the patient and his physician.

In the fifth place, ways would be hit upon to restrict free choice of a doctor.

In the sixth place, the politicians would contrive to connect the doctor with indemnity cash benefits.

### RELATION OF SANATORIUM TO TREATMENT OF TUBERCULOSIS

LEROY S. PETERS, Albuquerque, N. M. (*Journal A. M. A.*, Nov. 7, 1936), reasserts that Dr. Trudeau's experiment in the Saranac Lake section started the country on a sanatorium-building period which ultimately placed sanatoriums in practically every state in the union. In the early days the sanatorium treatment consisted of rest, good food, fresh air and expert supervision. There was little else to offer the patient. The progress of the disease had to be watched and the prognosis given by what the clinician could gather from physical examination and clinical symptoms alone. The advent of the x-rays and the various laboratory tests for determining activity and the progress in general were yet to come. Sanatoriums can boast results that were never dreamed of by home treatment, because there nursing supervision and routine is carefully looked after. Education of the tuberculous is best accomplished in the institutions.

# Proceedings

IN ABSTRACT OF THE OCTOBER 30-31st, 1936 MEETING AT  
PHILADELPHIA OF THE  
SOCIETY OF PLASTIC AND  
RECONSTRUCTIVE SURGERY

## Presentation of Cases:

1. **Rhinoplasty—Using New Profilometer.**  
Claire LeRoy Straith, M.D.
2. **An Operation for the Correction of Atresia or Stenosis of the Anterior Nares.**  
Gerald Brown O'Connor, M.D.
3. **Notes on Cutaneous Healing in Wounds.**  
Herbert Conway, M.D.
4. **Theories of Etiology of Congenital Deformities.**  
William S. Kiskadden, M.D.
5. **Correction of the Displaced Nasal Tip.**  
Samuel Cohen, M.D.
6. **The Surgical Treatment of Cutaneous Nevi.**  
George V. I. Brown, M. D.
7. **Surgery, Specialty Surgery, and Plastic Surgery.**  
Vilray P. Blair, M.D.
8. **Halving Operation in Plastic Surgery About the Eyes.**  
John M. Wheeler, M.D.
9. **The Restoration of Bone-Graft for Loss of Bone of the Lower Jaw.**  
Fred H. Albee, M.D.

## RHINOPLASTY— USING PROFILOMETER

CLAIRE L. STRAITH, M.D.  
Detroit, Michigan

The correction of hump noses probably is the most frequent plastic operation done by plastic surgeons. Simple esthetic sense is usually the operator's guide in such corrections. However, the removal of a large section from the bridge of a very large nose requires considerable courage and some of these patients have been disappointed in their results because

an insufficient amount was removed at the operation and they still have a deformity.

By the use of the profilometer, the exact amount of tissue to be removed can be determined and its use in trimming the nose down to the proper proportions will tend to decrease the number of disappointing results. It also gives the patient considerable satisfaction to see a demonstration with the instrument and they have a better idea of what the operator will try to accomplish. Incidentally, it gives the patient a more secure feeling when he or she knows that the operator has some definite scale to go by in making the correction.

## CORRECTION OF ATRESIA OR STENOSIS

GERALD BROWN O'CONNOR, M.D.  
New York, N. Y.

Atresia or stenosis of the nose is the result of a lack or loss of nasal vestibular lining. Any corrective procedure should restore the normal shape and contour of the nostril, nasal tip and ala, supply a vestibular lining and prevent any post-operative distortion.

The usual causes of stenosis are infections (syphilis and tuberculosis); trauma (burns and lacerations) and postoperative nasal sequelae.

On examination the majority of stenoses of the nares reveal a distortion of the tip cartilages and skin covering with a remaining epithelial lining covering the base of the septum and adjoining nasal floor. The operation: An incision starting at the base of the columella, proceeding to the nasal tip and then following the natural curve of the ala to its base. By sharp dissection creating a pocket exposing the medial crus of the ala, lateral alar cartilage, inferior ridge of nasal process of maxilla, and base of pyriform opening of maxilla. This pocket creates a ring of bone and cartilage that can only shrink to a limited degree, and the graft is entirely outside the nasal cavity. An impression with dental modeling compound (Stent) is made of this pocket. This is covered with a Thiersch graft and sutured into place. Mold is removed in a week and replaced to keep the cavity distended. About ten to fourteen days after the graft the tissue between the old stenosed airway and the medial side of pocket is excised. Interdigital flaps are used at this time to prevent a ring of scar tissue.

The same procedure is carried out with atresia (complete), except incorporated in the Stent is a rubber tube for drainage and breathing, and the nostril is constructed at one operation. The removal of all scar tissue, the exposure of the ring of cartilage and bone and the placing of the skin graft outside of the nasal cavity to prevent infection are the important basic principles of this operative procedure.

This operation can be done under local anesthesia and is a quick and efficient means of supplying nasal lining with a

minimum of hospital and physical disability.

## NOTES ON CUTANEOUS HEALING IN WOUNDS

HERBERT CONWAY, M.D.  
New York, N. Y.

- I. Discussion of the factors influencing the healing of clean incised wounds including discussion of the etiology of hypertrophic scars and keloids.
- II. Presentation of statistical data pertaining to the appearance of the scar in healed per primam wounds observed one to three years after the incision was made and sutured. Consideration of 225 right rectus abdominal incisions made for operations on the biliary tract; 25 mid-line suprapubic incisions made for lower abdominal operations; one hundred oblique incisions in the right lower quadrant of the abdomen made for hernioplasty or appendectomy; fifty "collar" incisions for thyroidectomy. Observation is made that upper abdominal incisions more often present a widened scar one to three years after operation than do lower abdominal incisions. Suggestion is made that this is due to the greater mobility of the upper abdominal wall in respiration, a factor capable of making stress and strain on the incision in the early days of wound healing before the maximal tensile strength of the wound has been reached. (Reference to the experimental work of S. C. Harvey, Alexis Carrel, DuNouys.) Observations are further made that:
  - 1) Patients who gain weight after abdominal operation and thus develop a thick panniculus adiposus uniformly show a greater widening of the scar than do those patients with incisions in the same location whose weight remains the same or actually decreases after operation.
  - 2) A growing tendency to disregard the direction of the lines of Langer in the placing of surgical incisions

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accounts for the development of hypertrophic scar in many cases.

- 3) Wounds in which the skin is sutured with interrupted silk sutures show less evidence of fibroblastic reaction than do those sutured with catgut.
- 4) Right lower quadrant abdominal incisions often show hypertrophic scar formation at lower end but not at upper end. Opinion is advanced that this is due to "beveling" of the incision at the time of operation.
- 5) Generous undercutting of the subcutaneous flaps in the making of clean incisions allows for mobility of the flap and relieves cutaneous tension during the early healing period. Observations on the technique of incision in thyroid wounds in which a wide margin of undercutting is usually followed by excellent wound healing with minimal fibroblastic response and no widening of the scar.

Presentation of animal experimental work in which clean incisions were made and sutured on the abdominal wall of dogs. Sharp blades and dull blades were used. Nicer healing was obtained in the incisions which were made with a very sharp knife and in which there was no "beveling" of the skin.

Presentation of actual photographs of abdominal and other scars showing the irregular fibroblastic response evidently due to beveling of the incision. Case records.

A discussion of the technique of incisional suture is made. Interrupted sutures are preferred; on-end mattress sutures are used; fine artery silk is used; *erépe leise* collodion dressing is used.

## **CORRECTION OF THE TWISTED NOSE, ESPECIALLY THE LOWER PART**

**DR. SAMUEL COHEN**  
Philadelphia, Pa.

He corrects a twisted nose, not by the technique of Joseph (that is, removing a triangular bony wedge from the wider side

and then fracturing the nasal processes), but by sawing the nasal bridge at an angle rather than straight across. The saw enters the bridge at a lower point on the wider side of the nose instead of on the narrower side. Thus when removing the bridge the protruding bony edges are higher on the narrower side than on the wider side, and when the nasal processes are sawed and fractured, these height discrepancies become evened up and a straight bony bridge is produced. Casts of a case were shown.

The technique for correcting the deviated lower section of the nose, that is, from the bony edge to the tip, was described. This technique is good in both adults and children and is especially applicable to cases with dislocation of the quadrilateral cartilages.

1. An incision is made at the lower border of each triangular cartilage, separating the skin down to the tip and cutting the mobile septum to the anterior nasal spine.

2. The mucous membrane on the concave side of the nasal septum is separated to the perpendicular plate, producing a wide pocket.

3. At the angle of the cartilage (the primary cause of the lower deviation) the cartilage is cut into to the opposite perichondrium *but not through*. If there is more than one angle, each angle is thus cut through so that they all can be placed in position to produce a straight wall.

4. The upper lateral cartilages are cut from the septum on each side but on the wider side a small wedge, base toward the tip, is removed.

5. The quadrilateral cartilage is now separated from its base on the vomer. Scissors or a sharp dissector may be used. Commence at the nasal spine and proceed upward and backward.

6. The posterior aspect of the columella is now deeply grooved with a fine pair of scissors; the dislocated quadrilateral cartilage is placed in this groove and two mattress sutures are inserted, connecting the septal structures (replaced mucosa, cartilage, and septal perichondrium) with the columella.

7. Simpson splints are inserted, removed in two days and a metal perforated splint inserted on the previously narrowed side. This last is worn for about



ten days. Sutures removed on the fifth day.

If one side of the nose bulges more than the opposite side, a piece of the upper lateral cartilage may have to be excised near its outer side.

## THE SURGICAL TREATMENT OF CUTANEOUS NEVI

GEO. V. I. BROWN, M.D.  
Milwaukee, Wisc.

The surgical treatment of cutaneous nevi presents to the surgeon features which are often apparently very contradictory and difficult to anticipate when treatment is considered.

Practically all of these cases in my practice are first referred to a dermatologist and if in his judgment the conditions are favorable for such treatment methods as he would employ, I do not operate. If not, then they are referred back to me for surgical correction.

The injudicious use of radium is illustrated in figure 16. The cicatrized round hole through the lip was, of course, much more difficult to correct than the original growth would have been. In early days such results were probably not uncommon, but at the present time the judicious use of radium is valuable and entirely free from danger.

The use of carbon dioxide snow as applied in birthmark cases and the resulting scar surfaces which are shown in Figure 17 and 18 can be much improved upon by treatment with violet ray and massage, as indicated by the results shown in the illustrations.

In all such cases as those herein described there should be close cooperation between the dermatologist and the plastic surgeon, and this to be effective requires an intelligent understanding on the part of each as to the methods of treatment the other would employ.

When such cases are under observation careful measurements should be made so that exact comparison can be made from time to time to determine if the nevi are increasing in size or otherwise. If found to be enlarging treatment should not be delayed. I use tracing paper for pigmented nevi, and plaster casts when practicable for outstanding growths.

## HALVING WOUNDS IN FACIAL PLASTIC SURGERY

JOHN M. WHEELER, M.D.  
New York City

In carpentry one way of getting a secure joint is by means of "halving." Instead of merely bringing edges or ends of boards in apposition to each other, the carpenter may get strong union by dividing the thickness of boards and overlapping the divided ends. Such a joint will not open up, and if well done it gives evidence of skill.

The surgeon is well rewarded for the time and pains called for in making a nice halving wound. In a general way the important gains are:

1. Security of the wound, which may be important when the flaps are under tension, as they may be after excisions.
2. Minimum scarring at the sites of incisions.

In filling depressions in the face different surgeons choose different materials. Whether bone, cartilage, dermis, fat, muscle or fascia is used a thoroughly sealed, secure wound for the skin flaps over the filling is required. Just to have a simple meeting of the skin flaps over the graft is not enough. The wound should be almost air tight and water tight. Halving gives the necessary security, and it gives the least scar deformity. I should like to take this occasion to express my preference for fascia lata as filling for depressions. If the wound over it is well sealed it surely will take, even in contact with a considerable amount of scar tissue in the cavity wall. It does not have to be fitted or shaped to the depression, but merely laid into it in adequate amount. It stays in place without undergoing contraction or other appreciable change for an indefinite length of time. It is firm enough, and it never annoys the patient. It will not slough unless exposed to infection or exposed to air, as it might be in case of imperfect sealing of the skin wound.

## HEREDITY

Each of us is an omnibus in which all of our ancestors are seated.

—OLIVER WENDELL HOLMES.

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# Contemporary Progress

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## Neurology

### Reliability of the Roentgenographic Signs of Intracranial Tumor

M. C. SOSMAN (*American Journal of Roentgenology*, 36:737-743, December, 1936) reports that in 413 cases referred for roentgenological examination of the head from the Medical Department of Peter Bent Brigham Hospital (Boston, Mass.), the diagnosis of brain tumor was made in 26 cases, in 18 of which this diagnosis was verified later. In these cases the accuracy of diagnosis as to the presence and location of the tumor was more accurate by roentgenography (excluding ventriculography) than by clinical methods of examination in the medical department. But in the Neurological Service of the Hospital, the author finds, the percentage of accuracy was higher for the clinical (neurological) diagnosis than for the roentgenographic diagnosis. Of 363 cases referred from the Neurological Service, there were 157 cases of verified intracranial tumors; the pre-operative clinical diagnosis was correct as to location in 138 cases, or 86 per cent; and as to type of tumor in 61 or 38 per cent. The roentgenographic diagnosis was correct as to location in 47 per cent, and as to type in 26 per cent. The diagnosis was definitely aided by the roentgenographic examination in 23 per cent; in 7 per cent, the diagnosis as to presence and location of the tumor was made entirely by the X-ray; and in 4 per cent the roentgenographic findings were misleading. In 116 cases ventriculography was done; in 62 cases the presence of a tumor was subsequently verified; and in 59 of these cases or 95 per cent, the

tumor had been correctly located by ventriculograms. In another group of cases, "not numerically appraisable," the roentgenographic evidence was definitely negative where clinical signs suggested the presence of brain tumor; this was often of definite value. The author concludes that with roentgenography "we may expect to be able to locate 50 per cent and identify 25 per cent of all intracranial tumors." If ventriculography is done, practically all intracranial tumors large enough to cause symptoms can be located, with the exception of some subtentorial tumors, small tumors in or around the optic nerves or chiasm, and small pituitary adenomas; in the latter group ventriculography is not indicated.

## COMMENT

*The figures and deductions of Dr. Sosman are important. They serve to stress a point we have made previously in this column, namely, that the satisfactory handling of a brain tumor suspect is best attained when it is made the joint problem of internist, neurologist, ophthalmologist, roentgenologist, neurosurgeon and others who may be invited to survey the problem. We obtain valuable aid from the interpretation of x-rays of the skull both with and without air studies. However, the opinion rendered is but one bit of evidence, and of itself is rarely diagnostic except in isolated instances.*

*It is generally conceded that air studies, particularly the direct introduction of air into the ventricles, is a well nigh indispensable adjunct for the precise localization so necessary for proper surgical approach. It is interesting to note that the more refined modern methods of neurologic examination and in-*

terpretation enable us to arrive at a fairly high percentage of accurate localizations.

Air studies are of special importance in differentiating degenerative and neoplastic conditions in the elderly. In this group there is an atrophy of the brain substance, just as there is a general shrinking of the body structure. Because of this there is a greater empty space volume in the intracranial space in the elderly than is found in the young adult. Because of this opportunity afforded a brain tumor to grow and expand, the early signs ordinarily associated with an expanding lesion are missing. We are much more apt to find interference with function rather than headache and choking of the discs in the elderly. The patient may expire without ever manifesting the usual signs of a brain tumor and the cause be found at the necropsy. We are apt to find surprisingly huge growths infiltrating the brain causing only lethargy, somnolence, general hebetude and interference with tract conduction without the patient manifesting the awaited signs of pressure.

We feel that in these cases a proper x-ray study is a necessary step in the solution of the case.

H.R.M.

### Effect of Benzedrine Sulfate In Normal and Neurotic Persons

A. MYERSON (*Archives of Neurology and Psychiatry*, 36:816-822, October, 1936) has found that in normal persons, benzedrine sulfate is of definite value in relieving "the fatigue and slight malaise" resulting from insufficient rest and sleep. The drug should be given in the morning on arising in amounts of 5 to 20 mg., and gives immediate relief "of a pleasant type." If the drug is taken toward the latter part of the day sleep is definitely impaired. In cases of the neuroses "associated with depression, fatigue and anhedonia," and in the "minor stages" of psychoses with the same type of symptoms, benzedrine sulfate is of definite benefit in relieving these symptoms in many instances. It is, the author notes, in no sense curative, but is of value during treatment by other methods. It is given daily on arising with a second dose around noon (but not later in the day) if indicated. In the illustrative cases reported, the morning dose was 20 mg., the noon dose 10 to 20 mg. In a footnote, the author states that since writing the paper he has come to the conclusion that smaller doses should be used for best results in neurotic

patients, with no more than 5 mg. as an initial dose and a total of 10 to 15 mg. in the morning.

### COMMENT

The above represents a direct attack on the symptoms which render the victim so miserable. Such methods are to be encouraged, as any treatment which will shorten the period of illness in this group of patients will be welcomed both by the profession and its patients.

The commentator has been using another line of approach in the female suffering the train of symptoms called a neurosis, and also a few experiencing a depression. Under daily administration of theelin (2,000 units) in oil, there has been a definite improvement in the following symptoms: insomnia, vasomotor disturbances with cold hands and cold feet, the internal uneasiness, best described as apprehension, and finally the prostrating weakness. The improvement in sleepiness is such that sedatives can be given up. There is noted an increasing warmth to the hands. Concomitant with the return of natural sleep, there is a betterment in the physical responses of the patient. In several instances of depression, where actual delusional trends existed, we have observed a disappearance of these as the physical state of the patient has improved. We have not noted any gain in the mental symptoms of the group suffering from schizophrenic disorders. For the latter we have had very favorable reports from insulin shock therapy; this is certainly a direct attack on a syndrome generally considered to have a very bad prognosis in most instances.

H.R.M.

### Leukemia and the Central Nervous System

R. GORDON (*Acta psychiatrica et neurologica*, 11:227-250, 1936) notes that nervous symptoms are not unusual in leukemia; often they are due to the general condition—toxemia or anemia; sometimes they are due to cerebral hemorrhages due either to the "hemorrhagic diathesis," or to leukemic changes in the blood vessel walls. Infiltration of the brain or spinal cord with specific leucoblastic tissue is of rare occurrence, but the possibility of this should be kept in mind in cases with nervous symptoms of obscure etiology. The author reports an illustrative case of acute lymphatic leukemia in which the chief symptom at onset was

stabbing pains in the legs and sacrum, followed by rapidly progressing ascending paralysis; there was fever and enlargement of the lymphatic glands, considered to be indications of an infection, so that a diagnosis of acute ascending myelitis was made. Only at autopsy was the correct diagnosis made, showing leukemic infiltrations of various organs, and a leukemic tumor in the spinal canal, compressing the spinal cord. The predominating cell in these infiltrations resembled a lymphoblast. The author notes that a review of literature shows that almost half of the cases with leukemic involvement of the spinal cord were diagnosed incorrectly. Spinal cord changes occur more frequently in acute than in chronic leukemia—as in the author's case—and often in these cases such specific tissue changes occur before the blood picture becomes characteristic, which still further confuses diagnosis.

#### **Thyrototoxicosis with Psychosis**

J. H. FRIEDMAN and M. KANZER (*Journal of Nervous and Mental Diseases*, 85:30-35, January, 1937) note that there is a lack of definite knowledge of the relationship between clinical symptoms, including psychotic manifestations, in thyrototoxicosis and the accompanying neuro-histological alternations. They found record of only 6 fatal cases of psychosis in the Second Medical Division of Mt. Sinai Hospital, New York City, in which thyrototoxicosis played an important rôle; and in a review of the clinical and pathological findings in these cases, noted only one case that was "sufficiently clear cut" to warrant a detailed report. In this case, the patient had had symptoms of Graves' disease for several years before thyroidectomy was done. After the operation there was definite improvement, but later symptoms of thyrototoxicosis recurred after an emotional shock. An acute psychosis followed another emotional shock, which was of the type of other "acute toxic exhaustive psychoses of varying etiology." Symptoms were relieved by intravenous injection of thyroxin, but as the patient was convalescing and apparently doing well, she died suddenly. Autopsy indicated death was due to "status thymo-lymphaticus;" the thyroid gland tissue remaining showed diffuse hyperplasia. The brain showed slight fatty degenerative changes of the ganglion cells and walls of the blood ves-

sels; and gitter cells in the cerebellum. The authors conclude that thyrototoxicosis may cause pathological changes in the brain before the onset of the toxic exhaustive type of psychosis, and the latter may, in turn, cause further damage to the brain tissue.

#### **Effect on the Electro-Encephalogram Of Drugs and Conditions Which Influence Seizures**

W. G. LENNOX, F. A. GIBBS and E. L. GIBBS (*Archives of Neurology and Psychiatry*, 36:1236-1245, December, 1936) report a study of various conditions that influence epileptic seizures by means of the electro-encephalogram, which records the electrical potentials of the brain. It was found that certain conditions that alter the electrical activity of the brain cortex in normal subjects also alter the pathological electrical activity that is characteristic of epileptic seizures. Mental alertness and attention decrease the fluctuations in the electric potentials of the normal cortex and also tend to prevent the appearance of petit mal seizures. Incidentally the authors note that this would indicate that "idleness and vacancy of mind" should not be prescribed for epileptics, especially in the early stages of the disease, but rather that they should be encouraged to continue in school or business and to seek mental stimulation. Sleep, like epileptic seizures, is characterized in the electro-encephalogram by great fluctuation in the voltage and variations in the frequency of rhythm. Sleep seems at times to cause and at other times to prevent the pathological activity characteristic of epileptic seizures. Petit mal, in the cases studied, did not usually appear in deep sleep, but seizures are more frequent in many instances when the patients are drowsy or waking from sleep. Inhalations of carbon dioxide, which, in the normal person, decrease the fluctuations, tend to prevent the appearance of petit mal. Over-ventilation, which causes "large, slow voltage fluctuations" in normal persons, tends to precipitate seizures. Phenobarbital and sodium bromide, even in doses not sufficient to modify the electric activity during normal periods, prevent or alter the pathological activity of petit mal seizures. The authors are convinced that the use of the electro-encephalogram is of definite value for a better understanding of epilepsy,

and for the evaluation of various methods of treatment.

#### COMMENT

*This new pioneer work has unlimited possibilities. The experimental work has been very carefully done, and every effort has been made to avoid drawing false and unwarranted conclusions. The very nature of this examination is fascinating.*

*We feel that the clinical conclusions have a justified scientific basis. The method offers a more accurate gauge as to the amount of stress which one can place on a patient suffering from convulsinosis.*

H.R.M.

## Physical Therapy

### Conservative Method of Treatment Of Trigeminal Neuralgia

B. ULANSKI (*Archives of Physical Therapy*, 18:1-9, January, 1937) reports the treatment of trigeminal neuralgia by a modification of the "rapid" sinusoidal current, which he has found useful in various forms of neuritis. The rapid sinusoidal current is an alternating current in which "each positive phase is immediately succeeded by a negative phase of equal intensity." In the first case of trigeminal neuralgia it was tried experimentally, as other forms of treatment had failed to give the patient relief. The pain ceased completely for a year, and was then relieved by a few additional treatments. The author has now treated 65 cases of trigeminal neuralgia with the rapid sinusoidal current with only 9 failures. The period of relief varied from a few months to three or more years, and in every case of recurrence there was immediate response to a repetition of treatment.

#### COMMENT

*The results accomplished by this method of treatment (the application of sixty cycle alternating current) show in actual clinical cases that it is effective. The application is purely empirical, as no scientific explanation can be given for the results. Often it is to be remembered that without scientific basis, therapy may be empirical but thoroughly effective for the patient. That is why the patient comes for treatment and the first function of a physician is to relieve the patient*

*of his symptoms and disease and not hold back relief because the method is not one hundred per cent scientifically explainable. The rationale can be developed as experience increases.*

N.E.T.

### Ultra-Violet Radiation in the Treatment of Varicose Conditions

A. EIDINOW (*British Medical Journal*, 1:16-18, Jan. 2, 1937) reports the treatment of varicose ulcers, varicose eczema and some cases of varicose veins with ultra-violet irradiation at the St. John Clinic, London, England. A special technique has been adopted for these cases, as it was found that local treatment with ultra-violet rays from the tungsten arc was not effective. In the treatment of varicose ulcers, the ulcer and the skin area for 1 to 1½ inches surrounding it is exposed to massive doses of the ultra-violet rays from a quartz air-cooled mercury vapor lamp; with the lamp at a distance of 12 inches from the skin, six times the skin erythema dose is given. An elastic adhesive bandage is then applied tightly from the base of the toes over the foot, including the heel, and up the leg to the knee. The patient is instructed to keep the bandage clean, but not to remove or disturb it; it is kept on for a week, and then treatment is repeated. It has been found that the ulcer area is clean when the bandage is removed, with no foul odor and no evidence of re-infection. The use of this elastic adhesive bandage has proved to be a "boon" to outpatients, the author states. In varicose eczema when the skin is red with areas of exfoliation and inflammatory edema, intensive doses of ultra-violet radiation may be given—four to six erythema doses—with the same technique as for varicose ulcers, followed by the application of the elastic adhesive bandage. In about six to eight weeks, when healing is well advanced, the varicose veins are treated by the injection method; intensive ultra-violet-ray treatment is discontinued, but the leg is treated once a week with the lamp at a distance of thirty inches for five minutes (two skin erythema doses). In cases of old-standing varicose veins, in which the health of the patient or the "enormous" size of the veins makes the injection treatment impossible, the symptoms are greatly relieved by exposure of the legs to erythema doses of ultra-violet rays, treatments being given twice a week



for eight weeks. In the past four or five years 240 cases of varicose ulcers have been treated at the Clinic by the method described, and over 90 per cent have been healed within six months.

#### COMMENT

Research into the effects of ultraviolet radiation on the skin seems more and more to point to the conclusion that this energy is capable of making the skin form its own antitoxin. This would account for the effect Eidinow reports when treating varicose ulcers, i.e., that the infection in the ulcer area seems cleaned up. Using massive doses of ultraviolet light, causing an edema of the skin, also relieves congestion around the ulcers and tends to promote more normal circulation with improvement in the pathology. In the cases of "old-standing" varicose veins, this edema of the skin may be a possible cause of the body establishing an increased lymph circulation which accounts for the relief of symptoms.

The designation of dosage by Eidinow as so many erythema doses is to be commended. The old-fashioned prescription of so many minutes at so many inches is too vague for rational therapy.

N.E.T.

#### Studies of Comparative Deep Tissue Heating

S. BENSON and W. BOWMAN (*Archives of Physical Therapy*, 17:749-752, December, 1936) describe a method used to determine the relative value of various agents for deep tissue heating without inserting a thermocouple into the tissue. This method was based on the theory that if heat is applied to the elbow region, a certain amount of the deep heat is taken up by the arterial flow and can be detected at the hand, so that the temperature of the hand will rise in proportion to the amount of deep heat delivered. This method was employed to determine the relative deep tissue heating effects of short wave diathermy, the electromagnetic induction coil, hot air (electric pad) and hot water. It was found that the electromagnetic coil produced the greatest rise in temperature; short wave diathermy and hot water were next in order and the electric pad least effective. In regard to the time required to reach the maximum temperature: this was shortest with short wave diathermy; the electric pad and hot water, short wave diathermy was second, magnetic coil required the longest time.

Temperature tests were also made on the opposite hand, to determine the reflex effect of the various agents. This "reflex" rise of temperature was greatest with hot water; short wave diathermy was second, electromagnetic coil induction third, and the electric pad least effective. This reflex action, the authors note, "is probably chiefly initiated in the skin nerve mechanism of the heated arm," and it is thus to be expected that the hot water would cause the greatest rise, as it "exerts the greatest skin stimulation of all the agencies used."

#### COMMENT

This article bears out previous observations by Benson that hot water is one of the best means of heating an extremity. Although not mentioned in this abstract, Benson probably used the whirlpool bath, which not only has the effect of hot water alone, but stimulates circulation through the massaging effect brought about by the whirlpool. When such a simple method can effectively raise temperature in extremities, it is a waste of time and energy and nothing but showing off to the patient to use other less potent means such as short wave, electromagnetic induction, etc. It is hoped that in future comparisons the authors will also include the use of radiant phototherapy and infra-red. These are frequently much more effective than electrical methods.

N.E.T.

#### Electrophoresis in the Treatment Of Essential Hypertension

H. RUTENBECK (*Klinische Wochenschrift*, 15:1920-1922, Dec. 26, 1936) reports the treatment of essential hypertension by electrophoresis, employing a cholin derivative (doryl) at the positive pole. A ring electrode is used at this pole with filter paper soaked in a 0.1 per cent solution of doryl, which is placed on the patient's forehead, with care that no portion of the metal electrode shall be in contact with the skin. The negative electrode covered with cotton wool moistened with water is placed at the nape of the neck. A current of 1.5 milliamperes is employed. An hour's treatment is given daily or every other day. The author has found that treatment with this method of electrophoresis promptly relieves the headache and other symptoms of essential hypertension and lowers the blood pressure very definitely. Improvement is maintained

after treatment is discontinued. In hypertension due to arteriosclerosis this treatment may temporarily relieve headache, but has no lasting effect on blood pressure. In some cases of chronic headache not associated with high blood pressure, two or three treatments have given relief.

#### COMMENT

Inasmuch as 1.5 milliamperes of galvanism is used, it can not be supposed that the penetration of the doryl is any greater on the forehead than if the application was made elsewhere on the body. Galvanism has been used with the positive pole on the nape of the neck for relieving headaches after lumbar puncture, and syncope has been induced by this same application of the current, but in a strength larger than described by Rutenbeck.

The accepted technique is described in the old phrase, "Positive posterior; negative not to the neck." It is suggested that this technique would be found more effective for treating the headache and the doryl would be absorbed by the circulation through the skin of the back of the neck just as well as when applied to the forehead. The effect of electrical treatments upon hypertension has been conceded to be achieved through causing an increase in the surface circulation, thereby decreasing the congestion in visceral circulation. Doryl and all such cholin derivatives produce this effect, the same as has been achieved for years by the use of autocondensation.

N.E.T.

#### Roentgen Therapy of Some Infections

F. M. HODGES and R. A. BERGER (*Journal of the American Medical Association*, 107:1551-1554, Nov. 7, 1936), on the basis of seventeen years of experience in the therapeutic use of the Roentgen rays, have come to the conclusion that certain "more or less localized infections" are so amenable to Roentgen irradiation that no other form of treatment is necessary. This group includes: Early localized erysipelas in adults, furuncles and furunculosis, granulomas, infected hemangiomas, cellulitis of certain types, lymphangitis of certain types, Mikulicz's disease, parotitis (especially postoperative) and rhinophyma. In most of these conditions unfiltered rays are employed, although in chronic (not acute) furunculosis, Mikulicz disease, chronic parotitis, and infected rhinophyma, filtered rays are used. In

another group of cases the authors have found Roentgen irradiation an important auxiliary in treatment, although other methods should also be used. This group includes carbuncles and dermatomycoses. In these cases filtered rays are employed. In the mycoses, irradiation is supplemented with iodine therapy. In early carbuncles, a large dose of filtered rays will often completely abort the lesion; but in other cases of carbuncle it has been found that "roentgen therapy in combination with heat, especially poultices, offers more than any other form of treatment." In the use of the Roentgen rays in the treatment of infections, the treatment must be individualized; the authors advocate smaller doses "rather than dosages approaching the erythemas." The dosage in the infections named rarely exceeds 400 roentgens (in air) or two-thirds an erythema dose during a series. A good working rule in the determination of dosage is that: "The greater the lymphocytic and leukocytic infiltration, the smaller the dose with softer X-rays, and the more chronic the condition the larger the dose and the harder the ray." In the use of the X-rays in the treatment of infections, cooperation between the radiologist and "practitioners in the other branches of medicine" is essential.

The treatment of another type of infection (otitis and mastoiditis) with the Roentgen rays is reported by J. H. LUCINIAN (*American Journal of Roentgenology*, 36:946-953, December, 1936). This author reports 50 cases of otitis media (31 acute, 8 subacute, and 11 chronic) treated by Roentgen irradiation over the ear and mastoid area. A low dosage is employed with 100 to 110 kv. and 2 mm. aluminum filter, giving 71.5 r, or about 15 to 20 per cent of the erythema dose. Some of the acute cases required only one treatment, others two treatments; the chronic cases as many as six treatments. In the acute cases, the treatment was followed by relief of pain (after the first application), increased discharge, improved hearing, and improvement in the systemic symptoms. None developed perforation of the drum or mastoiditis after the Roentgen-ray treatment was instituted; and none required tympanotomy. In 9 cases mastoiditis had developed when the X-rays were first used; 2 of these required mastoidectomy; the others recovered without operation. In chronic

otitis media, persistent discharge, pain, tinnitus and deafness were completely or almost completely relieved; the healing of perforated tympanic membranes was definitely accelerated. The most rapid improvement was noted when treatment was begun early in the chronic stage. In 25 unselected cases of acute and chronic otitis media in which Roentgen-ray therapy was not used, perforation of the drum occurred in 5 cases; mastoiditis developed in 9; mastoidectomy had to be done in 5 cases and tympanotomy in 11 cases. In none of the cases treated with the Roentgen-ray was there any deleterious effect on the organ of hearing.

#### COMMENT

*The germicidal action of x-rays has always been noted by clinicians since the first old-fashioned gas tubes were used. So much more attention has been given to the use of x-ray to destroy tissues that its property of destroying bacteria has been almost overlooked. Hodges and Berger have made a distinct contribution in summarizing their observations over a period of seventeen years and the only suggestion is that phototherapy would be more useful than poultices for the combined effect mentioned, with roentgenotherapy.*

*The cases reported by Lucinian indicate the growing tendency amongst conservative otolaryngologists to give every patient a chance to react to their infection instead of hurrying them to a mastoidectomy.*

N.E.T.

## Public Health, Industrial Medicine and Social Hygiene

### *Diseases of the Typhus Group In North America*

R. E. DYER of the United States Public Health Service (*Canadian Public Health Journal*, 28:1-9, January, 1937) notes that Rocky Mountain spotted fever is so closely related to typhus that it may be considered as belonging to the same group. The "old world" form of epidemic typhus has, it is true, been introduced into the United States and Canada from time to time, by immigration from Europe and Mexico, but it has "never gained a permanent lodging." Endemic typhus has been known to exist in the United States since described in New York in 1898. It differs from epidemic

typhus clinically and also in the fact that its vector is the rat flea, and that a reservoir of the disease exists in Norway rats. Endemic typhus has been found chiefly in the coastal towns and cities along the Atlantic seaboard until recently, when it has spread into the inland rural areas of certain Southern states, chiefly to the counties where peanuts are grown extensively. It has been suggested that the cultivation and storage of peanuts have attracted rats from the towns, but the author is of the opinion that the spread of the disease in these areas may be due to establishment of a "reservoir" among the native wild rodents. A study of these rodents has shown that many species are susceptible to the disease. Rocky Mountain spotted fever was given its name because it was first thought to be confined to the Rocky Mountain states, but it has been recently recognized as widespread in distribution over the United States, excepting only the New England states, Michigan and Wisconsin. The vectors of this disease are two species of tick—the wood tick of the Northwestern states and the eastern dog tick. Several species of squirrels, rats, mice and rabbits, woodchucks and also dogs and sheep are susceptible to the disease, and may serve as reservoirs for the spread of the infection. In some sections of the United States, spotted fever and endemic typhus occur "side by side." Spotted fever is the more severe of the two, especially in its nervous and mental symptoms, degree of prostration, and height and duration of the fever. The laboratory findings are of little aid in differential diagnosis. Differentiation between the two depends chiefly on the rash, which in spotted fever begins on the extremities and extends to the body, and in typhus begins on the trunk and extends to the extremities. For laboratory identification, the isolation and study of the disease in laboratory animals is necessary. In the control of endemic typhus, measures for rat extermination are most essential if the common gray or brown rat continues to be the chief reservoir of the disease in nature. If some other species of rodents become infected, the problem will be "much more difficult if not impossible." In the control of spotted fever, many measures for tick eradication have been tried, but so far with little success, for "the tick population and the incidence of human spotted fever remain about the same."

### ***The Incidence and Clinical Significance Of Various Types of the Diphtheria Bacillus in Illinois***

T. C. GRUBB and H. J. SHAUGHNESSY (*Illinois Medical Journal*, 70:462-468, November, 1936) determined the type of 162 strains of the diphtheria bacillus isolated from 109 cases and carriers in Illinois. Of these 5.5 per cent were of the gravis type, 78 per cent intermediate, 2.9 per cent mitis and 4 per cent atypical. The clinical information obtained in regard to the cases from which these strains were obtained indicated that the prevailing type of diphtheria was mild or moderately severe, and that the severe form of the disease, as it occurs in certain cities in England and Germany, where the gravis type of diphtheria bacillus predominates, was not observed. From these findings and from a review of the work of others, the authors conclude that where the prevailing type of diphtheria is mild in character, the incidence of the gravis type of the bacillus is low, and under these circumstances this type is not associated with the more severe cases of the disease.

### ***Treatment of Carbon Tetrachloride Poisoning***

G. G. DAVIS and H. A. HANELIN (*Industrial Medicine*, 6:24-29, Jan. 1, 1937) note that the widespread use of carbon tetrachloride in industry has resulted in the occurrence of many cases of both acute and chronic poisoning. On the basis of clinical and pathological findings in cases of carbon tetrachloride poisoning, they outline a plan of treatment for these cases. This includes: Intravenous hypertonic glucose and Hartman's solution to combat acidosis and liver dysfunction; insulin in small doses to facilitate metabolism; calcium in the form of the gluconate or the lactate. As an important adjunct to combat the anuria, they recommend the use of papaverin "to overcome spastic states of the blood vessels;" sodium decholin may be used in association to facilitate the action of papaverin. In the illustrative case of acute carbon tetrachloride poisoning reported, papaverin was the only drug that was effective in overcoming the anuria; after the secretion of urine was established, the patient showed progressive improvement and made a good recovery. The authors note that carbon tetrachloride causes a disturbance of metabo-

lism primarily and, if proper therapy is instituted, "these factors return approximately to normal, leaving evidences of only very little if any residual pathology."

### ***Blood Pressure in Lead Poisoning***

L. TELEKY of Vienna, Austria, (*Journal of Industrial Hygiene and Toxicology*, 19:1-5, January, 1937) notes that the periodic examination of workers in many industries has been a means of obtaining valuable data on the clinical aspects of lead poisoning in its early stages. Care must be used in the correct interpretation of these findings. It is frequently stated that lead absorption and lead poisoning are accompanied by a rise in blood pressure. A few recent investigations and the author's own experience indicate that early lead poisoning is not accompanied by a definite constant increase of blood pressure. This question, he states, should be more carefully studied, not only in early cases of lead poisoning, but also in cases of prolonged light lead absorption. In the solution of this problem large numbers of workers exposed to the lesser degrees of lead absorption, for many years (ten to twenty), should be examined. The author also suggests that the men examined should be forty-five years old or more, since at that age "vascular changes stand out more plainly and the blood vessels are more sensitive to injury."

### ***Efficiency of State and Local Laboratories in the Performance of Serodiagnostic Tests for Syphilis***

The Committee on Evaluation of Serodiagnostic Tests for Syphilis of the United States Public Health Service of which T. PARRAN is Chairman presents its report in the *American Journal of Public Health*, 27:15-23, January, 1937. Blood from known syphilitic and non-syphilitic "donors" was sent to state and local laboratories (municipal and private); certain laboratories used only one method for the test, others two methods. In all 51 tests with 19 separate serodiagnostic methods were made, and the results studied by the Committee in relation to the careful clinical records of the "donors" of the blood specimens. In the performance of certain tests it was found that results were strikingly uniform in practically all laboratories in which these tests were made.

Tests of equal efficiency from the point of view of sensitivity and specificity that yield such uniform results with different serologists are to be considered "distinctly superior" to tests that give less uniform results. Any test that yields false positives of even 1 per cent., when correctly performed, should be modified so as to increase its specificity. In certain laboratories the performance of some of the tests is inadequate and must be improved. The examination of the clinical records of the presumably syphilitic "donors" emphasizes the fact that a serologic diagnosis of syphilis should never be made on a single positive blood reaction. If such a positive test is obtained in any case in which there is no history or clinical evidence of syphilis, the test should be repeated in the same or another laboratory, using two or more different methods. If two tests are to be used, it was found to be immaterial whether two efficient complement-fixation methods, two efficient flocculation methods, or one complement-fixation and one flocculation method are used. For clinical purposes, qualitative tests may be reported as "positive, doubtful or negative," thus avoiding confusion arising from the use of symbols. The Committee recommends that a system of comparative examination of tests be established between state laboratories; and be extended in turn by state laboratories to local laboratories.

### **The Epidemiologic Aspects Of Syphilis**

W. A. BRUMFIELD, Jr. (*Southern Medical Journal*, 30:82-85, January, 1937) states that the available scientific knowledge concerning syphilis indicates that its control depends largely upon prompt and adequate treatment of the early case. The first requisite is a method for complete and accurate reporting of all syphilis cases; the method should be simple, "requiring a minimum amount of effort on the part of the reporting physician," and must avoid revealing the patients' names and "actual identities" if so desired by the physician, and yet give sufficient information to avoid duplication. The next step in syphilis control is to provide adequate facilities for treatment and for the follow-up of "delinquents" until they are rendered non-infectious. Another important factor in the control of syphilis is the investigation of the sources of infection and of con-

tacts in order that they also may be given proper medical care. Experience in New York State indicates that such investigations can be carried out more successfully in rural districts and the smaller cities than in large cities.

## **Ophthalmology**

### **Mydriatics for Elderly Patients**

L. T. POST (*American Journal of Ophthalmology*, 20:33-39, January, 1937) reports a comparative study of supragenin bitartrate and cocaine plus euphthalmine as mydriatics for elderly people. The average age of the patients used in this study was 57.8 years. In the first group of 10 patients two drops of supragenin, 2 per cent, were instilled in the left eye, and two drops of cocaine, 1 per cent, plus euphthalmine, 1 per cent, were instilled in the right eye. Five minutes later, the instillation was repeated. In the second group of 10 patients, only one instillation was made in each eye. In every case in the first group, dilation was more rapid in the left eye, in which supragenin was used; it was also more rapid with supragenin in all but 3 cases in the second group. Dilation after one hour was greater with supragenin in 8 of the 10 patients of the first group and in 5 of 8 in the second group (2 of this group not measured). In the first group in which two instillations were employed, cocaine plus euphthalmine caused an increase in tension in 4 cases, varying from 0.5 mm. to 4 mm., but in no case was the tension above 20 mm. Hg. In the second group in which only one instillation was used, the tension was increased in 2 of the 9 cases in which the tension was measured, but not over 5.5 mm. The use of supragenin did not cause an increase in tension in any case, and reduced tension in 7 of 9 cases in the first group. The dilatation produced by cocaine and euphthalmine was more easily controlled by eserine, which caused a contraction of the pupils in all of the 10 cases in which cocaine plus euphthalmine was used twice, and in all of the 7 cases in which it was tested in the second group in which the mydriatic was used once. But eserine restored the pupil to normal size in only one case in which supragenin was used twice, and in only 2 out of 7 cases in which supragenin was used once. No pain was caused by the instillation of cocaine plus euphthalmine in



any case, nor by the subsequent use of eserine when this mydriatic was employed. But with suprarénin, 6 of the 10 patients complained of pain in the eye in which this mydriatic was used twice (and later eserine); and in the 7 cases in which suprarénin was used once and eserine later, pain was felt in 3 cases. The author concludes that cocaine plus euphthalmine is more desirable as a mydriatic in elderly people unless "extreme dilatation" is necessary, as it can be counteracted more easily and completely and is less painful. Since it has a certain tendency to increase intra-ocular tension, its use should be followed by one drop of 0.5 per cent. eserine.

#### COMMENT

The question of mydriatics for elderly patients is important because it is essential that their eyegrounds and media be studied with maximum facility without the danger of bringing on an attack of glaucoma. Ephedrine (2 per cent by instillation) is usually sufficient to accomplish the purpose. It may be instilled one drop every five minutes for four or five times. Occasionally it may be necessary to moisten a pledget of cotton in the medication and place it beneath the upper lid for about five minutes. The disadvantage of these vasoconstrictors in elderly people is the possibility of their absorbing sufficient medication to cause a dangerous elevation of blood pressure. No means of dilating the pupil is without danger. One must be familiar with the effects of the agents and the technique of administration. They are then safe to use.

J.N.E.

#### Night Blindness Due to Vitamin A Deficiency

H. JEGHERS (*New England Journal of Medicine*, 216:51-56, Jan. 14, 1937) notes that photometer tests will reveal minor degrees of hemeralopia due to vitamin A deficiency which may interfere with efficacy of dark adaptation before the patient is aware of any night blindness. In the author's tests on supposedly normal adults for avitaminoses A, using a Birch-Hirschfeld photometer, he found a low photometer reading to be not uncommon. This could be traced to vitamin A deficiency and corrected by giving vitamin A in the form of carotene or vitamin concentrates. Questioning these patients with low photometer readings as to whether their diminished dark adaptation had given them any trouble, he found that a

number of them who drove automobiles had noted definite difficulty in driving at night, especially on country roads where there were no street lights. Impressed with the possibility that hemeralopia due to vitamin A deficiency could be responsible for some automobile accidents that occur after dark, he investigated this matter further in medical literature, and is convinced from this study and his own finding that slight degrees of "night blindness" are of sufficiently frequent occurrence to be a definite danger in automobile driving at night. He notes that none of the visual tests for either automobile drivers or aviators include a test that will reveal slight or moderate degrees of hemeralopia, and suggests that this is a problem deserving further study.

#### COMMENT

Routine tests for the detection and estimation of degree of night blindness have not been forthcoming. It is probable that properly conducted examinations by means of quantitative perimetry can be used to interpret defects of the light sense (Perimetric studies in reduced illumination or the use of graduated test objects).

Arnold Pillar's work on night blindness in relation to vitamin A is a classic and should be reviewed by those interested in the subject. One should recall that vitamin deficiency may be due not alone to deficient diet but more commonly among civilized people to inadequacy of assimilation or utilization and excessive loss. Pathological states may cause a rapid destruction of stored vitamins.

J.N.E.

#### Optic Atrophy as the Presenting Sign in Pernicious Anemia

H. COHEN (*Lancet*, 2:1202-1203, Nov. 21, 1936) notes that while disturbances of vision have long been recognized among the symptoms of pernicious anemia, yet there does not seem to be record of any case in which optic nerve involvement was noted as the earliest symptom of the disease. It is recognized that the changes in the nervous system that occur in pernicious anemia are widespread, and that the symptoms of nerve involvement may precede the development of symptoms due to the anemia; and thus it is reasonable on "a-priori grounds" that optic nerve changes might occur as a primary symptom in pernicious anemia. The author reports 2 cases in which progressive visual

failure with pallor of the disc was the first symptom; no cause could be found for the optic nerve atrophy on careful examination. The first patient did develop symptoms of pernicious anemia about three months after he was first seen; two months later the blood picture was typical. Treatment with liver extract given intramuscularly not only improved the blood picture and symptoms of anemia but also improved the vision to a considerable extent. In the second case, there was no clinical evidence of pernicious anemia, but the family history showed that the patient's father and an aunt (father's sister) had died of pernicious anemia. Gastric analysis showed complete achlorhydria; the red cell count was still high, but the blood picture showed some changes suggestive of early pernicious anemia. Intramuscular injections of liver extract produced definite improvement in vision. The author suggests that some cases of unexplained optic nerve atrophy could be saved from "progressive blindness," if a masked or latent pernicious anemia was recognized early as the cause of the failing vision and given adequate treatment.

#### COMMENT

A careful medical history is necessary in almost every ophthalmological case—whether the problem is (1) correcting a refractive error, or (2) the interpretation of eyeground lesions. In this way much data are discovered pointing to unsuspected disorders. Thus, digestive complaints may suggest an achlorhydria with the possible relation to an early pernicious anemia, and remind the ophthalmologist to study eyegrounds and visual fields with special care for corroborative evidence. J.N.E.

#### Early Ocular Complications of Epidemic Meningitis

N. K. LAZAR (*Archives of Ophthalmology*, 16:847-853, November, 1936) notes that the incidence of complications of all types varies widely in different epidemics of meningitis. This is as true of ocular complications as of others. In his study of ocular complications of meningitis at the Cook County Hospital, Chicago, he has found 83 cases with such complications in a total of 266 cases of meningitis in 1933; 6 cases with ocular complications among 98 meningitis cases in 1934; and 5 ocular complications in 211 cases in 1935.

In the 1933 epidemic it was found that the administration of serum intravenously reduced the incidence of these complications. In the early part of 1934, Hoyne introduced meningococcus antitoxin given intravenously for the treatment of meningitis; every third case of meningitis treated at the Cook County Hospital in that year was given this antitoxin. None of these patients developed ocular complications. In 1935 most of the patients with meningitis were given the antitoxin intravenously, and the incidence of ocular complications was low; in 2 of the cases in which such complications did occur, "spectacular recoveries" resulted from the use of the antitoxin. These observations indicate that ocular complications of meningitis are due to a blood stream infection. In 2 cases in which the eye was enucleated because of unilateral endophthalmitis complicating meningitis, the pathological examination indicated that the infection reaches the posterior segment through the retinal or choroidal vessels or both. The two chief ocular complications seen in all epidemics were endophthalmitis and paresis of the external rectus muscle; the endophthalmitis was of the same type as that due to other blood-borne infections.

#### COMMENT

The average ophthalmologist rarely sees a case of cerebrospinal meningitis. He can, however, supply great assistance in following the progress of such a case when frequent eyeground studies are possible. J.N.E.

#### Retinitis Diabetica

R. BRAUN (*Archiv für Ophthalmologie*, 136:256-301, Nov. 20, 1936) reports that of 770 diabetics studied at the Berlin-Westend Hospital, 115 showed changes in the retina. Ophthalmoscopic examination of these cases showed that the typical retinitis of diabetes is a central punctate retinitis. The optic disc in most cases is normal; others may show slight irregularity of outline; the retinal vessels are normal and there is no edema. The characteristic finding is the presence of numerous yellowish-white spots in the posterior pole, more deeply situated than the retinal blood vessels. In the more advanced cases some of the spots may become confluent, forming plaques. Small, usually punctate hemorrhages are also present, showing no close relation to the blood vessels of the retina. The author's studies have shown that the incidence of retinitis in diabetics

has not been reduced by the use of insulin. Now, as formerly, retinitis occurs in cases of diabetes of long standing and not of the most severe type. In the author's cases, most of the patients with retinitis showed a fasting blood sugar of 150 to 250 mgm. per cent at the time of their first examination at the Hospital. The cause of the retinitis in diabetics has not been definitely determined. In the author's opinion the disturbance of intermediate metabolism resulting in acidosis and excretion of xetone bodies appears to be the most important factor.

#### COMMENT

*Perhaps the most disastrous ocular manifestation of diabetes is capillary bleeding into the retina. We are apparently helpless to combat this unless we use vitamin C on the theoretic basis that it maintains endothelial integrity of the vessels, as it seems to have some control over the cement substance. In your editor's experience retinal hemorrhages in diabetes are most frequent with decreasing blood sugar.*

J.N.E.

#### Formation of New Vessels in the Vitreous

V. TAN (*Archives of Ophthalmology*, 16:1004-1014, December, 1936) reports a study of cases showing new formation of blood vessels in the vitreous at the Vienna University Eye Clinic. Such formation of new vessels, he found, is not uncommon in inflammatory processes in the retina: retinitis proliferans or hemorrhagic retinitis. In the cases observed, disturbance in the vitreous, usually hemorrhage, was always present. The inflammatory process in the eye was usually of syphilitic or tuberculous origin. If there was no new hemorrhage in the vitreous or the retinitis subsided, the newly formed vessels tended to regress and disappear. The author is of the opinion, on the basis of his observations, that the function of these new-formed blood vessels is reparatory—to aid resorption of the opacities of the vitreous and the retina; and when this function is fulfilled, the vessels always regress.

#### COMMENT

*Some authorities say that bleeding into the vitreous results in proliferative changes only when there is present a focal infection or some other type of infectious disease. V. Tan's studies imply corroboration of this idea.*

J.N.E.

## News and Notes

### 1937 APPEAL OF THE VISITING NURSE ASSOCIATION OF BROOK- LYN FOR FREE NURSING CARE

THE VISITING NURSE ASSOCIATION OF BROOKLYN has undertaken this year to raise \$150,000 for its free nursing care during 1937. For lack of funds the Association now has six fewer nurses than it had a year ago, a serious situation indeed when it is considered that each nurse represents at least 200 visits a month—visits made to destitute old people, discouraged young parents, and to little crippled children.

THE Association provides a complete generalized nursing service. The professional skill, sympathetic understanding and practical humanity of its nurses are offered to the sick of Brooklyn, young and old, black and white, educated and illiterate. Working constantly under doctors' direction, these graduate nurses care for the new born baby and the bed-ridden old woman, the crippled boy and the father ill with tuberculosis or cancer, the new mother and the old man slowly dying of heart disease. Some of their patients pay the \$1.06, the actual cost of the nursing visit. More than half, however, cannot. Yet these are the very ones who need the nurses' help desperately; hence the campaign to obtain from generous and thoughtful friends the cost of these unpaid-for visits. There is a determination to maintain the efficiency of the nursing service unimpaired. The \$150,000 asked for is the minimum required to keep the present staff in the field. Old friends—new friends—all are needed, for the Association faces a challenging year. Every gift large and small sends the nurses on their errands of mercy.

Contributions will be gratefully received at the headquarters of THE VISITING NURSE ASSOCIATION, 138 South Oxford Street, Brooklyn, New York, or at Campaign Headquarters, 146 Pierrepont Street, Brooklyn, New York.

## HYPOPARATHYROIDISM: TREATMENT OF CHRONIC CASES

Under carefully controlled conditions, R. H. FREYBERG, R. L. GRANT and M. A. ROBB, Ann Arbor, Mich. (*Journal A. M. A.*, Nov. 28, 1936), measured in two patients the effect of various remedies frequently employed in the treatment of chronic postoperative parathyroid tetany. The data obtained indicate that in order to compensate most satisfactorily for the altered state of calcium and phosphorus metabolism, the intake of phosphorus should be low and the calcium intake high. This can best be accomplished by feeding a low phosphorus diet (which will also be low in calcium) and large amounts of calcium salt, other than a phosphate. The commonly employed high calcium (milk) diet is undesirable because of its high phosphorus content. A solution of calcium lactate, in amounts sufficient to provide from 1.5 to 2.5 Gm. of calcium daily, is in many respects the best method of administering calcium. Vitamin D in large amounts is of definite value and should be given. Hydrochloric acid and magnesium carbonate were not beneficial. Thyroid substance should be administered, if hypothyroidism exists. Improvement in calcium and phosphorus metabolism that could be attributed definitely to thyroid medication was not observed. Although substitution therapy, consisting of the subcutaneous or intramuscular injection of parathyroid extract, is the most specific treatment, there are serious objections to the long continued use of this extract. If successful management can be accomplished without the use of parathyroid extract, it is advisable not to use it. Patients with severe chronic hypoparathyroidism can be maintained in a state of good, if not perfect, health without the use of parathyroid extract. The effectiveness of parathyroid extract when injected intravenously into a patient who had become "immune" to the extract injected subcutaneously suggests that "refractiveness" to parathyroid extract is due to a localization of destruction of the active principle at the site of its injection.

## MANDELIC ACID AS URINARY ANTISEPTIC: CLINICAL STUDY

In their analysis of thirty-seven cases of *Bacillus coli* infection, embracing acute

and chronic pyelitis, pyelonephritis, vesical diverticula, nephroptosis, renal calculus, prostatic hypertrophy with retention and cystitis, GRAYSON CARROLL, BRANSFORD LEWIS and LOUIS KAPPEL, St. Louis (*Journal A. M. A.*, Nov. 28, 1936), find that all these became microscopically clear under treatment with mandelic acid. Seven yielded positive cultures. The average number of days of treatment required to produce negative urines was 7.1. The seven cases of coccic infections, although improved, were not made sterile. Of the six cases of *Bacillus proteus* infection, only one was made sterile. The proteus organism, the authors found, is most resistant in the urinary tract. Eighty-one per cent of all colon infections treated resulted in sterile cultures. Practically all cases improved symptomatically and the urines became less cloudy. A urinary infection of a colon bacillus type, in which a pH of 5.5 is obtained, may be expected to clear up with the administration of mandelic acid within from four to twelve days. It is highly important to emphasize that all these patients were subjected to careful urologic study and the original causative factor in producing the pyuria was recognized and treated in the realization that the pyuria was only one manifestation of the trouble. The real value of the drug will be lost and actually be prejudiced if it is indiscriminately used before the diagnosis is made. Pyuria is the end product of many complicated diseases the cure of which calls for more than the administration of mandelic acid by mouth. Manifestly renal stone, kinked ureter due to movable kidney, prostatic hypertrophy, bladder diverticula, and stricture of the ureter or urethra—all found in the group studied—required more than the administration of mandelic acid; but mandelic acid was found most helpful in decreasing operative risk, when indicated, making the patient more comfortable and shortening the length of illness.

## LATE INFECTION FOLLOWING USE OF PINS AND WIRES IN BONES

S. L. HAAS, San Francisco (*Journal A. M. A.*, Nov. 14, 1936), believes that in spite of every aseptic precaution there is always the possibility of an infection when a metal pincer wire is inserted into a bone.



## SCOPOLAMINE-MORPHINE SEMI-NARCOSIS WITH MODIFICATIONS

O. S. KREBS, G. L. WULFF, JR. and HELMAN C. WASSERMANN, St. Louis (*Journal A. M. A.*, Nov. 21, 1936), use scopolamine-morphine seminarcois as a first stage measure and begin it when the patient is in active labor, usually determined by an obliterating cervical canal. In the hands of the less experienced it may best be started when the uterine contractions are strong and occur at regular intervals and usually when there is at least two fingers' dilatation in the primiparous patient. In the multiparas, the procedure is usually begun with the first regular contractions that are painful.

The initial injection contains morphine one-sixth grain (dilaudid hydrochloride at times), and scopolamine hydrobromide 1/133 grain (0.5 mg.), the former never being repeated. Forty-five minutes should elapse between the first and second and the second and third injections, and from that point on the dosage is determined by the patient's loss of co-ordination and depth of seminarcois.

WHEN the seminarcois is intensified to general anesthesia by a general anesthetic at the time of delivery, great care must be exercised to prevent the giving of too much anesthetic. Morphine seminarcois is most applicable during the first stage of labor, particularly in the primiparous patient or in the multiparous patient in whom previous repair work has been done on the cervix, or in whom the first stage is protracted and painful because of premature rupture of the membranes or a long rigid cervix.

The disadvantages of scopolamine-morphine seminarcois are chiefly from the standpoint of the attendants. Someone must be constantly with the patient, particularly the one who is supervising the injections. The other disadvantage is the not infrequent restlessness and occasional excitability of the patient. That is, however, by no means striking. It has no effect on the patient herself but at times is quite taxing to the attendant. In the last few years, with the increasing popularity of the barbituric acid derivatives, various of these preparations have been used with scopolamine hydrobromide and morphine usually preceding the latter drugs in administration.

## MAINTENANCE OF NORMAL WATER EXCHANGE WITH INTRAVENOUS FLUIDS

From their experience and that of others the occurrence of edema in surgical patients receiving parenteral fluids is not uncommon. Many factors such as under-nutrition, the excessive administration of water and salt, and the general effects of sepsis have been presented as setting the background for the retention of water. The precipitating factor is generally the excessive use of sodium chloride. To corroborate this opinion FREDERICK A. COLLIER, VERNON S. DICK and WALTER G. MADDOCK, Ann Arbor, Mich. (*Journal A. M. A.*, Nov. 7, 1926), studied the water exchange of a group of sick surgical patients who were given the commonly used intravenous fluids as a part of their necessary postoperative care. Twelve of the thirteen sick surgical patients receiving 5 per cent dextrose in physiologic solution of sodium chloride or Ringer's solution retained water and gained weight. The amount of water held was a little less with Ringer's solution than with the physiologic solution. When administration of this solution was stopped and fluids were taken by mouth or changed to 5 per cent dextrose in distilled water intravenously, all of the group promptly lost the water retained previously; viz., when the sodium chloride was omitted, the edema fluid disappeared even with a good water intake. No water was retained by a group of sick surgical patients given 5 per cent dextrose in distilled water. A loss of weight occurred, but this could be accounted for by the loss of body tissue oxidized for energy. One patient had a total serum protein and serum albumin value down to the critical level at which edema tends to develop. Water would most surely have been held if a sodium chloride solution had been used, but with the daily administration of 3,450 cc. of 5 per cent dextrose in water for six days no retention occurred. Throughout the whole study the suitability of this solution for maintaining a normal water exchange was apparent. Warning about the production of edema with salt solutions are well founded and should be heeded. While actual edema was noted in only one patient, several of them were well on the way to developing it and would have done so if the salt had not been stopped.



# Medical Book News

• All books for review and communications concerning Book News should be addressed to the Editor of this department, 1313 Bedford Avenue, Brooklyn, New York.

Edited by TASKER HOWARD, M.D.



Thomas Addison  
1793-1860

## Classical Quotations

• For a long period I had from time to time met with a very remarkable form of general anemia, occurring without any discoverable cause whatever; cases in which there had been no previous loss of blood, no exhausting diarrhea, no chlorosis, no renal, splenic miasmatic, glandular, strumous, or malignant disease. Accordingly . . . I applied to it the term "idiopathic."

Thomas Addison: *On Diseases of the Suprarenal Capsule*, Samuel Highley, London, 1855.

## Lewis' Contributions to Peripheral Vascular Diseases

VASCULAR DISORDERS OF THE LIMBS. Described for Practitioners and Students. By Sir Thomas Lewis, M.D. New York, The Macmillan Company, [c. 1936]. 111 pages. 8vo. Cloth, \$2.00.

• This small volume is a review of the practical application of experimental studies on the peripheral circulation which have been conducted in the author's laboratory for several years. The author has not dealt in any detail with the work of other investigators but has confined himself to the findings with which he has had personal experience. The book is intended for practitioners and students and is, as usual with the author, clear and concise. It explains in simple language what in more detailed papers is apt to appear complex to those not working in the field.

J. HAMILTON CRAWFORD.

## A New Textbook on Biochemistry

PRINCIPLES OF BIOCHEMISTRY. By Albert P. Mathews. Baltimore, William Wood & Company, [c. 1936]. 512 pages, illustrated. 8vo. Cloth, \$4.50.

• The author in this textbook rightfully emphasizes the importance of biochemistry in medicine. He gives a detailed discussion of the chemistry of carbohydrates, fats and proteins in health and disease. There are several chapters on the special chemistry of important tissues. The various

vitamins and their application to health and disease are well described. There is an interesting chapter on various hormones and their interrelationships in the human body. An interesting chapter is that on basal metabolism.

EDWARD H. NIDISH.

## A New Textbook on Medicine

THE PRACTICE OF MEDICINE. By Jonathan Campbell Meakins, M.D. St. Louis, The C. V. Mosby Company, [c. 1936]. 1343 pages, illustrated. 4to. Cloth, \$10.00.

• Doctor Meakins professes to some audacity in offering a textbook in medicine written largely by one man, in these days of specialization. He has shown, however, that it can be done very well. Except for the chapters on Diseases of Metabolism and on the Ductless Glands (Mason), on Nephritis (Scriver), and Diseases of the Nervous System (Petersen), the thirteen hundred odd pages of the book are to his credit. As in Osler one senses the underlying interest in pathology, so in Meakins there is constantly evident the spirit of the modern physiologist. This manner of presenting disease processes, with emphasis on the whys and the wherefores, is particularly valuable to the student, who will thus be stimulated to think his way through his medical problems rather than to be too ready to accept unsupported empiricism. It encourages the attitude that will keep the student a student long after Meakins' first edition is out of

date. The book is remarkably complete, the clinical pictures are graphic if brief, the pathology is adequate, the treatment a bit sketchy but sound. More could scarcely be crowded into one volume. The illustrations, including many x-ray plates, electrocardiograms, colored plates, and photographs, are illuminating. Altogether the book can be heartily recommended as a "textbook in medicine for students and practitioners."

TASKER HOWARD.

#### *A New Obstetrics*

A TEXTBOOK OF OBSTETRICS. By Edward A. Schumann, M.D. Philadelphia, W. B. Saunders Company, [c. 1936]. 780 pages, illustrated. 8vo. Cloth, \$6.50.

● What! Another textbook on obstetrics? Yes, and a good one. Good because it is "not padded," yet complete. Whereas the standard textbooks on obstetrics contain from 800 to 1,100 pages with from 700 to 1,000 illustrations, this volume is composed of 754 pages with 497 illustrations, and yet it covers the subject adequately.

The format is excellent, as we would expect of the publishers. The general arrangement of the text presents nothing unusual in obstetric outline.

In the matter of diagnosis the book is particularly commendable. The author has arranged his subject matter simply and expressed himself clearly. In many instances, the important differential signs and symptoms are in tabulated form which makes for more ease in mastery, and furthermore, is time saving. The volume is full of such spots indicative of the experienced teacher and the logical clinician.

It has been said that the illustrations either make or break any textbook. With this most of us will agree. Here again Schumann excels. While many of the illustrations are "borrowed" they have been well chosen, and together with originals, make up as fine a collection of illustrations as one could desire. They really illustrate, instead of padding the volume at an increased cost to those who would purchase the book.

Operative obstetrics will be with us always. Today it is too much with us. This section of Schumann's book is compact and informative. However, brevity has not submerged detail, and meticulous detail is very essential to operative indications and technic.

Nowadays all textbooks must have a bibliography. Schumann has appended a very comprehensive one, unique in the manner of arrangement, and one that is easy of reference.

In conclusion your reviewer hazards the opinion that Schumann has covered the subject of obstetrics in a manner not yet excelled. He has striven, and with success, to teach the reader how to see, how to feel, how to hear, and how to interpret in the management of the obstetric patient. His methods of presentation sparkle with simplicity and this is the mark of the master teacher.

HARVEY B. MATTHEWS.

#### *Bailey's Histology Revised*

BAILEY'S TEXT-BOOK OF HISTOLOGY. (Elwyn and Strong). Revised and rewritten by Philip E. Smith, Ph.D. Ninth edition. Baltimore, William Wood and Company, [c. 1936]. 773 pages, illustrated. 8vo. Cloth, \$6.00.

● This revised edition is a product of seven members of the anatomy and neuro-anatomy staffs of the College of Physicians and Surgeons of Columbia University. They have brought forth a comprehensive and complete volume of histology, having added many recent findings to their respective chapters. They have attempted to correlate structure with function and have done so admirably.

This volume makes an excellent text as well as reference book.

NATHAN REIBSTEIN.

#### *More English Surgery*

POST-GRADUATE SURGERY. Edited by Rodney Maingot, F.R.C.S. Volume II. New York, D. Appleton-Century Company, Inc., [c. 1936]. Page 1747 to 3572, illustrated, 4to. Cloth, \$15.00.

● The second volume of Post-Graduate Surgery physically corresponds to Volume I which was recently and favorably reviewed. There are 1,825 pages with 1,134 figures, drawings, and plates. This second volume contains eleven parts—The Head, The Spinal Column, The Salivary Glands; The Neck; The Breast; The Thorax; The Female Genital Organs; The Urinary System, and The Male Genital Organs; The Sympathetic Nervous System; The Adrenal Gland; Injection Therapy; Infections of the Hand; and Orthopaedics. The various subjects under discussion have been

carefully written by recognized specialists. Eighteen contributors have made this second volume an excellent one. Each subject is comprehensively and completely presented omitting all unnecessary discussion of obsolete fads and fancies. It is noted that considerable enthusiasm is given to the injection treatment of inguinal hernia. Infections of the hand are well presented. Surgery of the adrenal gland is brought up to date. In short, the reviewer considers that this second volume deserves as much praise as the first. It is as enthusiastically recommended to the student of surgery, be he young or be he old, as was volume one.

MERRILL N. FOOTE.

#### *For the Public Health Worker*

A HEALTH EDUCATION WORKBOOK for Teachers, Parents, Nurses, and Social Workers. By Kathleen W. Wootten, M.A. New York, A. S. Barnes and Company, [c. 1936]. 273 pages. 4to. Paper, \$1.50.

● The author is head of the department of Health and Physical Education at the Georgia State College for Women and has written several books whose purpose primarily is to present teaching material in appropriate form for the instruction of college students.

The volume now under review is for teachers, parents, nurses and social workers. It is designated by Miss Wootten as a "Workbook" because the various chapters give outlines of the subject matter as a basis for reference reading and study. Appropriate books of reference are listed at the end of each chapter.

Starting with an analysis of the health education program, this is amplified in the succeeding chapters by topics such as school environment and sanitation, safety and physical education, playground and other curricular activities. Then follows consideration of direct health problems such as the school health service, school control of communicable diseases, physical defects, and, finally, specific health problems which include mental hygiene, speech defects, sex education and posture.

The subject matter does not overstep the bounds of general health instruction by extending its scope into matters of a technical medical character.

A. E. SHIPLEY.

#### *Kuntz's Neuro-Anatomy Revised*

A TEXT-BOOK OF NEURO-ANATOMY. By Albert Kuntz, M.D. Second edition, thoroughly revised. Philadelphia, Lea & Febiger, [c. 1936]. 519 pages, illustrated. 8vo. Cloth, \$6.00.

● This is a thoroughly revised and extended second edition of a well known and widely used textbook. The material has been arranged so that the student gains a concept of the nervous system as a whole, then the simpler mechanisms of the spinal cord and brain stem, and lastly, the more complicated long conduction pathways with other central pathways that may be involved in conducting of impulses to and from higher centers. The text has ample illustrations. References to literature, particularly original papers, have been listed at the conclusion of each chapter for the use of students in collateral reading. Three new chapters and an outline of laboratory work have been included. The chapter concerning the autonomic nervous system is based on chapters I to V of the author's 1934 book "The Autonomic Nervous System." This Neuro-anatomy will continue to occupy a prominent place not only as a textbook but also as an excellent source of information for the practitioner of neurology.

JEFFERSON BROWDER.

#### *Dermatology for the Pediatricist*

SKIN DISEASES IN CHILDREN. By George M. MacKee, M.D. & Anthony C. Cipollaro, M.D. New York, Paul B. Hoeber, Inc., [c. 1936]. 345 pages, illustrated. 8vo. Cloth, \$5.50.

● The authors state in the preface that this book was written especially for practitioners of general medicine; and so, disputed points, remedies of doubtful value, etc., are omitted, thus making it concise and compact.

The peculiarity of the dermatoses of children, they demonstrate, is in that there are a number of types seen only in infancy and childhood. This is well illustrated by the atopic eczema of infancy. There is no type of eczema in the adult that has the clinical aspect, or runs the course of this type of dermatitis.

The book abounds with illustrations, which are actual photographs of the authors' cases. It is replete with specific therapeutic instructions and complete prescriptions, which should be of great assistance to the general practitioner.

One is at first somewhat disappointed by the absence of a list of references;

but as was stated previously, since this book is a practical and concise discussion of the dermatoses of children written especially for the general physician, and not for the dermatologist, a bibliography may not be of any great importance.

All in all, this book covers a lot of information in its 345 pages, and is very complete. It can certainly be highly recommended as a good modern summary of skin diseases in children. It should be in the library of every physician treating children.

ABRAHAM WALZER.

#### *Dewey's Autobiography*

RECOLLECTIONS OF RICHARD DEWEY, PIONEER IN AMERICAN PSYCHIATRY. An Unfinished Autobiography with an Introduction by Clarence B. Farrar, M.D. Edited by Ethel L. Dewey. Chicago, The University of Chicago Press, [c. 1936]. 173 pages, illustrated. 8vo. Cloth, \$2.00.

● The autobiography of Dr. Richard Dewey, pioneer of American Psychiatry, which was originally intended to cover a period of fifty years of intensive work in psychiatry terminated suddenly by the author's death in 1933. At the time of his death, he had covered only the first twenty years, ending with 1893. The first chapter covers his preliminary education, graduation from Dwight High School and finally his fulfillment of the requirements for the medical degree from the University of Michigan in 1869. In 1870, we find him volunteering for surgical military service in the German army in the Franco-German War. His close association with the heads of the surgical department is accurately depicted. In 1871, by mere coincidence he drifted into the specialty of psychiatry.—As a superintendent of the Kankakee State Hospital he introduced new methods of treatment, and was instrumental in bringing forth the cottage plan in 1879. During his regime every restraint to the insane patient was totally removed.

One reads the book with considerable pleasure. It is well written, historically accurate, and should interest every psychiatrist.

WILLIAM RACHLIN.

#### *A Byway in Dermatology*

DISEASES OF THE NAILS. By V. Pardo-Cas tello, M.D. Springfield, Charles C. Thomas, [c. 1936]. 177 pages, illustrated. 8vo. Cloth, \$3.50.

● This monograph is an exceptionally interesting and valuable one. In its prepa-

ration, the author has drawn extensively upon the literature of the world, and his own tremendous experience of many years. The bibliography is quite complete, and the photographic reproductions of nail diseases, nearly 100 in number, excellently portray the conditions.

After a few pages on anatomy and histology, he begins with pathology, laying down the fundamental concepts, including chemistry of the nails. His description of nail affections is divided into four chapters, viz: (1) Affections peculiar to nails, such as paronychia, unguis incarnatus, pterygium, etc. (2) Onychodystrophies, (3) Ungueal manifestations of dermatoses and of systemic diseases, and (4) Congenital affections of the nails. Concise definitions and descriptions of the dystrophies, with numerous illustrations take up the major part of the book, and make its perusal a pleasure. In following through the association of nail disturbances found in systemic diseases one finds an additional aid to diagnosis, or a clue to the systemic disease, as particularly shown in syphilis and leprosy.

This book is worthy of a place in any physician's library.

E. ALMORE GAUVAIN.

#### *For the Dietitian*

APPLIED DIETETICS. The Planning and Teaching of Normal and Therapeutic Diets. By Frances Stern. Baltimore. The Williams & Wilkins Company, [c. 1936]. 263 pages, illustrated, 4to. Cloth, \$3.50.

● This book is truly, as its name implies, a book devoted entirely to the practical application of the theoretical knowledge of food in relation to the body. Unlike other books on the subject of nutrition and dietetics, the author adheres to her main topic, and does not go into either the physiology or pathology of the diseases for which she prescribes dietary routines. She does, however, discuss in detail all factors other than food, such as environment, occupation, and religion, which do have a direct bearing on the food habits of the patient under observation. These factors, in the opinion of the author, have as large an influence on the success of the therapeutic diet as the individual foods. The charts, which are many in number, are worthwhile. They are a compilation of all the technical data needed for calculation of the most accurate special diet. This book may well be added to the library of the practitioner or dieti-

tian as a ready reference on practical therapeutics in dietetics.

M. ANT.

### *Popular Medicine*

MEDICINE AND MANKIND. Lectures to the Laity delivered at the New York Academy of Medicine. Edited by Iago Galdston, M.D. New York, D. Appleton-Century Company [c. 1936]. 216 pages, illustrated. 12mo. Cloth, \$2.00.

● This book is a series of lectures delivered to the laity by prominent members of the medical profession at the New York Academy of Medicine. As Dr. Eugene H. Pool states in his introduction to the book, the Academy "has attempted to admit the public behind the scenes and to reveal to them the influences which direct the working of the medical mind."

The first lecture, which was given by Prof. B. P. Watson, is a short review of the development of the sciences of anatomy and physiology. Dr. Howard W. Haggard, in his discourse on "Medicine in the Days of the Grand Monarch," reviews the status of medical knowledge during the reign of Louis XIV and reveals the extent to which the ailments of this monarch contributed to the progress of medicine. The late Dr. Harlow Brooks delineates in a lucid manner the part played by the American Indian in the advancement of medicine. Prof. Elmer V. McCollum reviews the historical background of recent studies and discoveries in the field of vitamins. Other lectures were prepared by Prof. Foster Kennedy, Dr. George Draper and Dr. Alexis Carrel.

All of the lectures bear the marks of careful preparation, and this reviewer found them generally interesting. However, some of them are of such a highly scientific standard that it is difficult to understand how they could have possibly enlightened the layman in the ways of medical science.

WM. RACHLIN.

### *Common Sense from a Psychiatrist*

KEEPING YOUR CHILD NORMAL. Suggestions for Parents, Teachers and Physicians; with a Consideration of the Influence of Psychoanalysis. By Bernard Sachs, M.D. New York, Paul B. Hoeber, Inc., [c. 1936]. 148 pages. 12mo. Cloth, \$1.50.

● As the title suggests, this book is concerned with the normal child and how to keep him so. In the introduction, the author urges both parents to assume responsibility in the matter, and to evaluate the modern methods, as applied to childhood, judiciously. He stresses the importance

of environment, particularly proper familial example, for good character development of the normal child. He would encourage old fashioned virtues of family discipline and family affection. There is sensible advice on how to arrange a child's reading, on sex education, and on the question of motion pictures. There is a concluding chapter on the influence of psychoanalysis which the author considers generally detrimental. There is also a bibliography.

This book is a good treatise on the use of common sense in bringing up a normal child. It stands out particularly in contrast to so many other works of a similar nature, wherein all problems of childhood are dogmatically treated in terms of a particular system of psychological thought.

STANLEY S. LAMM.

### *New Edition of Keys*

UROLOGY. By Edward L. Keyes, F.A.C.S., F.R.C.S. and Russell S. Ferguson, M.D. Sixth edition. New York, D. Appleton-Century Company, [c. 1936]. 707 pages, illustrated. 4to. Cloth \$10.00.

● This volume is of particular interest as a new edition coming from the facile pen of a distinguished urologist, teacher and orator, whose experience in the field antedates the year 1900. Valuable contributions are included in pathology, endocrinology, tumor studies and their treatment. Credit for these, as well as many other additions to the work, belongs largely to Dr. Ferguson. The book has been completely revised and contains many more instructive and useful illustrations than the previous editions. References to the literature have been purposely avoided. The book is very comprehensive and should prove valuable to the urologist, as well as to those otherwise interested in the subject. The usual fine literary style is manifest throughout the work. It is difficult for the reviewer to express in a few lines his many reactions and impressions concerning the wide field so well covered within its pages.

AUGUSTUS HARRIS.

### *Surgery in New York*

THE SURGICAL CLINICS OF NORTH AMERICA. June, 1936. Volume 16, number 3. (New York Number). Issued serially, one number every other month by the W. B. Saunders Company, Philadelphia & London. Per Clinic Year (6 nos.) Paper, \$12.00; Cloth, \$16.00.

● The New York issue of the Surgical Clinics of North America is replete with



articles of general surgical interest. A symposium on the surgical treatment of pain gives a thorough review of many new procedures in this field, including surgical treatment of sciatica by sectioning the iliotibial band.

Dr. Heyd discusses the general problems of surgery in the obese and lean patients. Numerous other articles deal with problems of gastric and intestinal surgery, parathyroid pathology, and common infections of the hand. The volume is well illustrated.

GEORGE WEBB.

#### Fractures and Law

MEDICO-LEGAL ASPECTS OF FRACTURES. By Edward Adams, M.D. New York, The American Physician, Inc., [c. 1936]. 168 pages, illustrated. 8vo. Cloth.

● This book of 168 pages has 64 illustrations in outline sketches and an anatomical chart. It is addressed to lawyers as well

as to physicians, but the legal profession may find it more profitable than will medical men. The reason for this is understandable from the fact that methods of treatment are not considered except from the viewpoint of functional and final results. This aspect of the treatment of fractures is the one that the patient is vitally concerned with, and is not stressed sufficiently in the usual run of text-books. However it is not conceded that the subject is satisfactorily covered in this book.

There is a foreword of appreciation by Dr. Fred H. Albee and a second by Mr. Emanuel Hayt of the New York Bar. It may be noted that on the title page the name of the author is followed by a list of previous publications, some of a kindred nature, but is significantly silent as to his connections with hospitals and special societies.

J. RAPHAEL.

## BOOKS RECEIVED

*Books received for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgement of receipt has been made in this column.*

PHYSIOLOGICAL PRINCIPLES IN TREATMENT. By Sir Walter Langdon-Brown, M.A. and Reginald Hilton, M.A. Seventh edition, Baltimore, William Wood and Company, [c. 1936]. 308 pages. 8vo. Cloth, \$3.00.

A SYSTEM OF CLINICAL MEDICINE DEALING WITH THE DIAGNOSIS, PROGNOSIS AND TREATMENT OF DISEASE FOR STUDENTS AND PRACTITIONERS. By Thomas Dixon Savill, M.D. Edited by Agnes Savill, M.D. and E. C. Warner, M.D. Tenth edition. Baltimore, William Wood & Company, [c. 1936]. 1114 pages, illustrated. 8vo. Cloth, \$9.00.

THE HARVEY LECTURES. Delivered under the auspices of the Harvey Society of New York. Series XXXI. Baltimore, The Williams & Wilkins Company, [c. 1936]. 255 pages, illustrated. 8vo. Cloth, \$4.00.

ON YOUR GUARD! The Prevention and Treatment of Sex Diseases. By Carl Warren, B.A. New York, Emerson Books, Inc., [c. 1937]. 160 pages, illustrated. 12mo. Cloth, \$1.00.

1936 YEAR BOOK OF UROLOGY. Edited by John H. Cunningham, M.D. Chicago, The Year Book Publishers, [c. 1936]. 496 pages, illustrated. 12mo. Cloth, \$2.50.

PHYSICAL DIAGNOSIS. By Ralph H. Major, M.D. Philadelphia, W. B. Saunders Company, [c. 1937]. 457 pages, illustrated. 8vo. Cloth, \$5.00.

DIETETICS FOR THE CLINICIAN. By Milton A. Bridges, M.D. Third edition. Philadelphia, Lea & Febiger, [c. 1937]. 1055 pages. 8vo. Cloth, \$10.00.

PHYSICAL THERAPEUTIC METHODS IN OTOLARYNGOLOGY. By Abraham R. Hollender, M.D. St. Louis, The C. V. Mosby Company, [c. 1937]. 442 pages, illustrated. 8vo. Cloth, \$5.00.

PERSONALITY, ITS STUDY AND HYGIENE. By Winifred V. Richmond, Ph.D. New York, Farrar & Rinehart, [c. 1937]. 279 pages. 8vo. Cloth, \$2.50.

CHEMISTRY OF FOOD AND NUTRITION. By Henry C. Sherman, Ph.D. Fifth edition complete-

ly rewritten. New York, The Macmillan Company, [c. 1937]. 640 pages, illustrated. 8vo. Cloth, \$3.00.

MODERN TREATMENT AND FORMULARY. By Edward A. Mullen, M.D. Philadelphia, F. A. Davis Company, [c. 1936]. 408 pages. 8vo. Cloth, \$4.75.

ALLERGIC DISEASES. Their Diagnosis and Treatment. By Ray M. Balyeat, M.D. Fourth edition, revised and enlarged. Philadelphia, F. A. Davis Company, [c. 1936]. 516 pages, illustrated. 8vo. Cloth, \$6.00.

APPLIED DIETETICS FOR ADULTS AND CHILDREN IN HEALTH AND DISEASE. By Sanford Blum, M.D. Philadelphia, F. A. Davis Company, [c. 1936]. 408 pages. 8vo. Cloth, \$4.75.

HANDBOOK OF ANATOMY. Being a Complete Manual of Anatomy. By James K. Young, M.D. Revised by George W. Miller, M.D. Eighth revised edition. Philadelphia, F. A. Davis Company, [c. 1936]. 460 pages, illustrated. 8vo. Cloth, \$4.25.

CARCINOMA OF THE FEMALE GENITAL ORGANS. By M. C. Malinowsky and E. Quatermann, M.D. Boston, Bruce Humphries, Inc., [c. 1936]. 255 pages, illustrated. 8vo. Cloth, \$5.00.

AN INTRODUCTION TO COMPARATIVE BIOCHEMISTRY. By Ernest Baldwin, B.A. New York, Macmillan Company, [c. 1937]. 112 pages, illustrated. 12mo. Cloth, \$1.50.

A HANDBOOK OF OCULAR THERAPEUTICS. By Sanford R. Gifford, M.D. Second edition thoroughly revised. Philadelphia, Lea & Febiger, [c. 1937]. 341 pages, illustrated. 8vo. Cloth, \$3.75.

HEART DISEASE. By Paul Dudley White, M.D. Second edition. New York, Macmillan Company, [c. 1937]. 744 pages, illustrated. 8vo. Cloth, \$7.50.

THE 1936 YEAR BOOK OF PEDIATRICS. Edited by Isaac A. Abt, M.D. Chicago, The Year Book Publishers, Inc., [c. 1937]. 507 pages, illustrated. 12mo. Cloth, \$2.50.

HERE'S TO CRIME. By Courtney Ryley Cooper. Boston, Little, Brown & Company, [c. 1937]. 454 pages. 8vo. Cloth, \$2.75.

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## ASSOCIATED PHYSICIANS OF LONG ISLAND

### 39th Annual Meeting Broke Attendance Records

THE 39th annual meeting and clinical day in Brooklyn brought out a record attendance of the Associated Physicians of Long Island. A very complete clinical day was provided at St. John's Hospital and dinner at the Granada Hotel, Saturday, Jan. 30, 1937.

Through the courtesy of St. John's Hospital the very complete clinical day was provided as follows:

- 10:30 A. M.—Clinical Demonstrations, Operations, etc.  
Thoracoplasty—Dr. John E. Jennings.  
Supracervical Hysterectomy—Dr. S. L. Fisher.  
Grille skin graft—Dr. G. F. Sammis.  
Gastric Resection—Dr. S. B. Thomas.  
Pilonidal Cyst—Dr. L. A. Thunig.
- 11 A. M.—Radiograms of Interesting Cases—Dr. J. C. Knapp.
- 12 Noon—Urological Problems in Diagnosis—Dr. Augustus Harris.  
Demonstration of Neurological Examination—Dr. Laurent Feinier.
- 1:30 P. M.—Luncheon as guests of the hospital.
- 2:30 P. M.—Pathological conference—Dr. T. J. Curphy.  
Recent Advance in Anesthesia—Dr. Leonid Watter.

The scientific session was held in the Nurses' Auditorium, and included case reports, motion pictures, lantern slides and demonstration of cases. The short papers with brief discussions provided a rapid survey of varied conditions.

- 1 Chorea—Dr. Paul L. Parrish.  
Discussion by Dr. David MacDonell.
- 2 Russell Traction Treatment of Fracture of Femur—Dr. James L. Cobb.

- Discussion by Dr. Kenneth Young.
- 3 Differential Diagnosis of Jaundice—Dr. Carl Greene.
- 4 Early Recognition of Cancer of Larynx (Patients with Artificial Larynx)—Dr. Robert Moorhead.  
Discussion by Dr. E. R. Nodine.
- 5 Artificial Pneumothorax Therapy—Dr. C. E. Hamilton.  
Discussion by Dr. Edwin Kolb.

### Business Meeting

The following candidates were unanimously elected to membership: Dr. W. G. Burke of Hicksville, Dr. Einar Sund of Brooklyn, and Dr. Joseph Rizzo of Brooklyn.

The secretary's report showed 542 paid up members, 53 in arrears for 1936, a total of 595.

The election of officers for 1937 unanimously chose:

- President—Dr. Charles A. Anderson  
Vice President—Dr. Otho C. Hudson  
Second Vice President—Dr. E. J. Browder  
Third Vice President—Dr. John B. Healy  
Fourth Vice President—Dr. Harold Merwarth  
Treasurer—Dr. Edwin A. Griffin  
Secretary—Dr. David E. Overton

An amendment was passed stating: "In the election of candidates for membership, five or more dissenting votes will prevent election."

Another amendment was passed stating: "There shall be a board of 7 members to be known as the board of directors consisting of the president, the last three living ex-presidents, the first vice president, the secretary and treasurer."

A third amendment stated: "The membership of the association shall be limited to 600 members in good standing."

A fourth amendment stated: "The officers shall consist of a president, president-elect, first vice president, second vice president, third vice president, treasurer and secretary."

Dr. Thomas B. Wood was made chairman of a committee which he was to select to revise the whole constitution and by-laws.

It was voted to return the dues to the former amount of \$5 per year, to start in 1938.

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## PYOGENIC CYSTITIS: METHODS AND TREATMENT

Clyde L. Deming, M.D., F.A.C.S.

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tion by adopting this mode of urination are emphatic and most pleasing to the practitioner. The general practitioner should not hesitate to recommend such a simple procedure.

### Conclusion

The bladder is an organ which possesses definite inherent mechanisms of defense against infection. The avenues by which organisms travel into the bladder are few, but the causes for infection are numerous. When a bladder infection persists more than ten days there usually exists one of two possibilities: either there is an obstruction to the outlet of the bladder, or there is a source for the feeding of organisms into the bladder. Prolonged bladder infections lead to an early death.

The treatment of cystitis begins with preventive measures. Avoid catheterization whenever possible, but when it is necessary use a soft catheter and follow with a thorough irrigation of the bladder. Organic obstructive lesions must be removed. There are only a few valuable drugs which can be given by mouth. Daily hot irrigations of 120 degrees Fahrenheit over a period of ten to twenty days will cure chronic bladder infections. Procumbent urination is a short cut to the cure of chronic cystitis in cases of cystocele and parietic bladder and its daily practice is a method of preventing future infections.

### References

1. Hinman, Frank: A Simple Apparatus for Continuous and Automatic Bladder Irrigation. *Journal of Urology*, 3:281 (Aug.), 1919.
  2. Hunner, Guy L.: The Tub-Bath Treatment of Cystitis. *J. A. M. A.*, 49:2066-2069 (December 21), 1907.
  3. Munro, Donald, and Hahn, Joseph: Tidal Drainage of the Urinary Bladder, a Preliminary Report of This Method of Treatment as Applied to "Cord Bladders" with a Description of the Apparatus. *New England Journal of Medicine*, 212:229-239 (Feb. 7), 1935.
- 330 CEDAR STREET.

## Book News

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**NEW LIGHT ON DELINQUENCY AND ITS TREATMENT.** Results of a Research Conducted for the Institute of Human Relations, Yale University. By William Healy, M.D. and Augusta F. Bronner, Ph.D. New Haven, Yale University Press, [c. 1936]. 226 pages. 8vo. Cloth, \$2.00.

**THE QUEEN'S DOCTOR.** Being a Strange Story of the Rise and Fall of Struensee, Dictator, Lover and Doctor of Medicine. By Robert Neumann, New York, Alfred A. Knopf, [c. 1936]. 401 pages. 8vo. Cloth, \$2.50.

**THE DEVELOPMENT OF MODERN MEDICINE.** An Interpretation of the Social and Scientific Factors Involved. By Richard H. Shryock. Philadelphia, University of Pennsylvania Press, [c. 1936]. 442 pages, illustrated. 8vo. Cloth, \$4.00.

**PSYCHOANALYSIS EXPLAINED.** By Dorothy R. Blitstein. New York, Coward-McCann, Inc., [c. 1936]. 66 pages. 12mo. Cloth, \$1.00.

**ABSORPTION FROM THE INTESTINE.** By F. Verzar assisted by E. J. McDougall, Ph.D. New York, Longmans, Green & Co. [c. 1936]. 294 pages, illustrated. 8vo. Cloth, \$9.00.

**THE PHYSIOLOGY AND PHARMACOLOGY OF THE PITUITARY BODY.** By H. B. VanDyke. Chicago, The University of Chicago Press, [c. 1936]. 577 pages, illustrated. 8vo. Cloth, \$4.50.

**HEALTHY GROWTH.** A Study of the Influence of Health Education on Growth and Development of School Children. By Martha C. Hardy, Ph.D. and Carolyn H. Hoefler, M.A. Chicago, The University of Chicago Press, [c. 1936]. 360 pages, illustrated. 8vo. Cloth, \$3.50.

## LONG ISLAND PHYSICIANS

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The matter of election of emeritus members was referred to the membership committee for consideration.

The annual dinner at the Hotel Granada was well attended by 80 enthusiastic members. The roof garden was engaged for the use of the association and the proximity of the hotel to the Long Island Railroad station was appreciated by those who journeyed in from the Island.

After dinner Mr. Howard Scott, Director in Chief of Technocracy, Inc., told the members just exactly where he thought we are heading. He elicited a few vivacious denials from Dr. VanCott and others, but it was all in fun and Mr. Scott made a lasting impression. There is one thought which grew out of the whole day —The Associated Physicians of Long Island are heading for a place of still greater importance under the guidance of Dr. Charles A. Anderson.

DAVID E. OVERTON,  
Secretary.